CONSTRUCTION NEWS

Supplement to ENGINEERING NEWS.

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CONSTRUCTION NEWS.

Plans and Specifications on File.

(denotes that this work is advertised in Engineering News.)*

The following plans (P.) and Specifications (S.) are on file and may be seen at office of The Engineering News Publishing Co., 220 Broadway, New York.

Bids close.	Work.	See Issue.
2-20	*W.-Wks., Webster, N. Y. (P.& S.)	2- 4
2-20	Sewer, Denton, Tex. (P.)	2- 4
3- 1	Pavement, etc., Oxford, Miss. (S.)	2- 4
3- 1	*Power plant, Lethbridge, Alta. (S.)	1-21
3- 5	Repairing dikes, etc., Savannah, Ga. (S.)	2-11
3-11	Pumping engines, Kansas City, Mo. (S.)	2-18

List of Contracts Pending.

LIGHT, HEAT AND POWER PLANTS.

2-24	Conduits, etc., Albany, N. Y.	2-11
3- 1	*Power plant, Lethbridge, Alta.	1-21
3- 2	Wiring, etc., Atlanta, Ga.	2- 4
3- 2	Transmission line, Winnipeg, Man.	2-18
3-22	Elec. supplies, Wash., D. C.	2- 4

BRIDGES.

2-18	Bridge repair, Chicago, Ill.	2-18
2-20	Bridge work, Cleveland, Ohio	1-28
2-20	Bridge, Hanover, Ill.	2-11
2-24	Bridges, Tulsa, Okla.	2-11
2-24	Bridge, Mamoroneck, N. Y.	2-18
2-25	Bridge approach, Westmoreland, Kan.	2-18
3- 2	Bridges, Grafton, N. Dak.	2-18
3- 2	Bridges, Faulkton, S. Dak.	2-11
3- 3	Bridge work, Cleveland, Ohio.	2- 4
3- 4	Bridges, Paris, Ark.	12-17
3- 5	Bridge bonds, Coshocton, Ohio.	2-11
3- 6	Bridge work, Cleveland, Ohio.	2-18
3- 8	Superstructure, Zanesville, Ohio.	2-18
3- 8*	Superstructure, Woodstown, N. J.	2-18
4- 5	Bridge, etc., Harrisonburg, La.	2- 4

BUILDINGS.

2-18	School site, Highland, Mich.	2-18
2-20	Warehouse, Baltimore, Md.	2-18
2-20	Building, Carthage, Mo.	2-18
2-20	Post-office, Bar Harbor, Me.	1-21
2-20	Plans, Port Arthur, Ont.	1-28
2-20	Plans, etc., Woodstock, Ont.	2- 4
2-22	Post-office, Dixon, Ill.	2-18
2-23	Addition, Roslindale, Mass.	2-18
2-23	Additions, Melrose, Mass.	2-18
2-23	Building, Toronto, Ont.	2-18
2-23	Sale of buildings, Los Angeles, Cal.	2- 4
2-23	Buildings, Los Angeles, Cal.	2- 4
2-23	Building, Abilene, Tex.	2- 4
2-23	Building, Dodge City, Kan.	2- 4
2-23	Post-office, Roanoke, Va.	1-21
2-24	*Court-house, Omaha, Neb.	2- 4
2-24	Buildings, Albany, N. Y.	2-11
2-24	Riding hall; West Point, N. Y.	2-11
2-24	Jail, Rochester, N. Y.	2-11
2-25	Police station, St. Louis, Mo.	2-18
2-27	Ward, Hot Springs, S. Dak.	2- 4
3- 1	Town hall, Northfield, Ohio.	2-11
3- 1	Stable, Ft. Snelling, Minn.	2-11
3- 1	Court-house, Twin Falls, Idaho.	2-11
3- 1	Bakery, Ft. H. G. Wright, N. Y. (Mfg. Pl.)	2-11
3- 1	*Factory, Syracuse, N. Y. (Mfg. Pl.)	2-11
3- 1	Coal shed, Tiburon, Cal.	2-11
3- 1	Post-office, Gadsden, Ala.	2- 4
3- 1	Machinery, Maxton, N. C. (Mfg. Pl.)	2- 4
3- 1	Hotel, etc., Syracuse, N. Y.	1-21
3- 8	Post-office, etc., Augusta, Me.	2-18
3-	Ice plant, Hot Springs, S. Dak. (Mfg. Pl.)	1-28
3-	Heating, ventilating, Atlanta, Ga.	2-11
3-	Post-office, Elizabeth, N. J.	2- 4
3-	Shops, Winnipeg, Man. (Mfg. Pl.)	2-11
3-	Quarters, Fort Slocum, N. Y.	2-11
3-	Post-office, Moline, Ill.	2-18

WATER-WORKS.

2-	Wks., Elyria, Ohio.	2-18
2-	Wks., Decatur, Ill.	2-11
2-	Wks., Itta Bena, Miss.	2-11
2-	Ave. Fort Wood, N. Y.	2-18
2-	Wks., Scottsbluff, Neb.	2-18
2-26	W.-Wks., Colfax, Ill.	2-18
2-26	*W.-Wks., Webster, N. Y.	2-18
2-22	Pump, Winnipeg, Man.	1-28
		12- 3
2-24	*Pumping engine, Saskatoon, Sask.	2- 4
2-24	Pumping plant, Owosso, Mich.	2-11
2-24	Reservoir, Lincoln, Neb.	2-18
2-24	Water meters, etc., South Bend, Ind.	2-18
2-25	*C.-I. water-pipe, Newark, N. J.	2-18
2-26	Aqueduct, Salt Lake City, Utah.	2-18
2-26	Water mains, Jackson, Minn.	2-18
3- 1	Pump, Forest Park, Ill.	2-18
3- 1	W.-Wks., material, Saskatoon, Sask.	2-18
3- 1	Water main, Milwaukee, Wis.	2-11
3- 1	Pump, Muskogee, Okla.	2-11
3- 1	*Filtration plant, Rock Island, Ill.	2- 4
3- 4	Water tank, Fort Assinniboine, Mont.	2-11
3- 8	*Water-works, Shattuck, Okla.	2-18
3- 9	*Aqueduct, New York.	2-18
3-11	*Aqueduct, New York.	2-18
3-11	Meter chambers, etc., Fort Warren, Mass.	2-18
3-11	*Pumping engines, Kansas City, Mo	2-18
3-11	*Enlarging dam, Lebanon, Pa.	2-11
3-15	Water-works, Wichita, Kan.	1-21
3-15	*Filtration plant, Philadelphia, Pa	2-18
3-16	W.-Wks., Berlin, Md.	2-18
5- 5	Pumping machinery, Petaluma, Cal	2-11

SEWERS.

2-19	Sewer system, Itta Bena, Miss.	2-18
2-20	Sewer, Birmingham, Ala.	2-18
2-20	Sewer, Denton, Tex.	2- 4
2-22	Sewer, Natchitoches, La.	2-18
2-24	*Sewers, etc., King's Park, N. Y.	2-11
2-24	*Sewer, etc., Rochester, N. Y.	2-11
2-25	Sewer, Youngstown, Ohio.	2-18
2-26	Sewer, Louisville, Ky.	2-11
3- 1	*Sewage disposal, Asbury Park, N. J.	2-18
3- 1	Sewer, New London, Conn.	2-11
3- 2	Sewer, Newburgh, N. Y.	1-28
3- 5	*Sewer, Avalon, N. J.	2-18
3- 8	Sewer, Grundy Center, Iowa.	1- 7
3-22	Sewer system, Wayne, Neb.	2-18

STREETS AND ROADS.

2-18	Road rollers, Wilkes-Barre, Pa.	2-18
2-19	Road impvt., Cincinnati, Ohio.	2-11
2-19	Paving, Louisville, Ky.	2-18
2-20	Sidewalks, Lake Village, Ark.	2- 4
2-24	*Asphalt, Winnipeg, Man.	2- 4
2-22	*Pavement, Asbury Park, N. J.	2-11
2-25	Concrete walks, Ft. William, Me.	2-18
2-27	Curbing, etc., Newton, Ohio.	2- 4
2-27	Grading, etc., Newton, Ohio.	2-11
3- 1	Road, Columbus, Ind.	2-11
3- 1	Roads, Danville, Ind.	2-11
3- 1	Roads, Mooresville, N. C.	2-11
3- 1	Road, Portsmouth, Va.	2-11
3- 1	Pavement, etc., Oxford, Miss.	2- 4
3- 1	Road, La Fayette, Ind.	2-18
3- 1	Roads, Greenfield, Ind.	2-18
3- 1	Road, Crain Point, Ind.	2-18
3- 1	Pike road, Vernon, Ind.	2-18
3- 1	Macadam roller, Winnipeg, Man.	2-18
3- 2	Roads, Washington, Ind.	2-18
3- 2	Road, Logansport, Ind.	2-18
3- 2	Pike roads, Spencer, Ind.	2-18
3- 2	Roads, Monticello, Ind.	2-18
3- 2	Roads, Bloomfield, Ind.	2-18
3- 2	Roads, Vincennes, Ind.	1-28
3- 2	Roads, Crawfordsville, Ind.	2-11
3- 2	Asphalt, Louisville, Ky.	2-11
3- 3	Regulating, etc., Brooklyn, N. Y.	2-18
3- 3	Road, Muncie, Ind.	2-18
3- 4	Road, Wabash, Ind.	2-18
3- 4	*Paving, Corning, N. Y.	2- 4
3- 5	Road, Newcastle, Ind.	2- 4
3- 6	Roads, Williamsport, Ind.	2-18
3- 6	Road impvt., Cleveland, O.	2-18
3- 8*	Repaving, Buffalo, N. Y.	2-18
3-20	Road impvt, Cleveland, Ohio.	2-18

MISCELLANEOUS.

2-19	Ditch, Elbow Lake, Minn.	2-11
2-20	Repairing steamer, Ft. Monroe, Va.	2-18
2-20	Ditch, Hamilton, Ohio	2-18
2-22	Timber, Ottawa, Ont.	2-11
2-23	Cleaning ditches, Harvel, Ill.	2-11
2-23	Dredging, Sacramento, Cal.	2-18
2-23	Naval supplies, Wash., D. C.	2-18
2-24	Hose wagons, Winnipeg, Man.	2-11
2-25	Pier, San Francisco, Cal.	2- 4
2-25	Cement, New York	2-18
2-27	Ditch, Flandreau, S. Dak.	2-18
2-27	Ditch, Newtown, Ohio.	2-11
3- 1	Coal shed, California City Point, Cal	2-11
3- 2	*Telephone line, Winnipeg, Man.	2-11
3- 2	Fire Dept. equipment, New York.	2-18
3- 3	Drainage ditches, Emmetsburg, Iowa	2-11
3- 5	Repairing dikes, etc., Savannah, Ga.	2-11
3- 5	Stone, Grand Rapids, Mich.	2-11
3- 5	River impvt., Buffalo, N. Y.	2-11
3-17	*Lock gates, Brownsville, Pa.	2-18
3-17	Mooring stones, Portland, Me.	2-11

CIVIL SERVICE.

2-24	Scientific Asst., Wash., D. C.	1-21
2-24	Laboratory aid, Columbia, Mo.	1-21
2-24	Topographic aid, Washington, D. C.	1-28
2-24	Junior chemist, Washington, D. C.	1-28
2-24	Computer, Washington, D. C.	1-28
2-24	Asst. bacteriologist, Washington, D. C.	1-28
2-24	Examiner, Ore. Wash.	1-28
2-27	Supt. Highways, Albany, N. Y.	2- 4
2-27	Resident Engr., Albany, N. Y.	2- 4
3- 5	Chemical Biologist, Wash., D. C.	2- 4
3-17	Practical Miner, Wash., D. C.	2- 4
3-17	Aid in Zoology, Wash., D. C.	2- 4

FOREIGN.

3- 1	Floating dock, Egypt	12-31

RAILWAYS.

ACME, RED RIVER & NORTHERN.—Company has filed an amendment to its articles of incorporation in Texas, changing its name to the Quanah, Acme & Pacific Ry. Co., and its capital stock was increased from $25,000 to $70,000. The amendment also provides for an extension of the road an additional 50 miles. The present length of the road is twelve miles, from Quanah to Acme and from Salina to Acme. The extension is to be 50 miles, beginning on a west line of Quanah, into Cottle County and through Hardeman County. Chas. H. Sommer is Vice-Pres. and Gen. Mgr., St. Louis, Mo. F. M. Sands is Gen. Supt., Quanah, Tex.

CANADIAN NORTHERN.—This company has decided to extend its system from Edmonton to the Pacific Coast at Vancouver. The direction which will be taken by the new line is southwest, and the distance in an air line is about 460 miles. The company, however, will have to build nearly 750 miles of road. The Canadian Northern will make the third transcontinental railway line in Canada, and its construction westward is expected to give great force to the development of the Northwest, and especially to the provinces of Alberta and British Columbia. The extension will tap some of the richest mineral and agricultural fields in that territory. Arrangements satisfactory to the directorate of the railway have been made with the province of British Columbia, it is stated, and the line will be constructed from Edmonton in northern Alberta, the present western terminus of the Canadian Northern, through British Columbia by way of the Yellow Head Pass, down the North Thompson River, to a junction with the Fraser River, thence to New Westminster, B. C., and on to Vancouver on the Pacific. T. Turnbull is Asst. Ch. Engr., Winnipeg, Man.

CAROLINA, CLINCHFIELD & OHIO.—Application for a charter has been made in South Carolina. Company proposes to build a new line from Cowpen Ridge, S. C., to Columbia, S. C., 100 miles. M. J. Caples is Vice-Pres., Gen. Mgr. and Ch. Engr., at Johnson City, Tenn. Fully noted on Oct. 22. In the application for incorporation the route is not stated. It is stated that Spartanburg, S. C., is a terminal. The capital stock is placed at $30,000,000, and the application is signed by William H. Lyles, of Columbia; Geo. L. Carter, of Johnson City, Tenn.; A. A. Phlegan, of Bristol, Tenn. The charter also states that the line is chartered in Virginia and that 108 miles have been built. According to present plans, Spartanburg will be a terminal and another terminal is a point near Island Ford ferry. Of the line, 108 miles have already been constructed and the total length is 244 miles. The plans so far call for at least 20 miles in South Carolina. The head office is St. Paul, Va., and the line at present begins in Russell County, Va.

CHICAGO & NORTHWESTERN.—The line between Fond du Lac and Green Bay, Wis., is to be double-tracked this summer, it is stated. E. C. Carter is Ch. Engr., Chicago.

ELDORADO, MARION & SOUTHWESTERN.—We are officially advised that company does not intend to do any construction work for some time in connection with the proposed extension of the Eldorado, Marion & Southwestern R. R., from Marion, Ill., to Eldorado, Ill., 30 miles. P. R. Colp, Marion, Ill., is Gen. Mgr.

ERIE.—The Public Service Commission, Second District, has granted the application of the Erie Railroad Co. for authority to issue $30,000,000 par value collateral trust 5% gold bonds, maturing in 30 years. In its application for authority to issue the $0,000,000 bonds, the Erie's representative stated to the Commission that it was the intention of the company, in the event of favorable action on its application, to make improvements in terminals, car and engine shops, eliminate grade crossings, build additional tracks, sidings and stations, and make improvements generally along its entire lines.

GENEVA, CORNING & SOUTHERN.—Directors of the Syracuse, Geneva & Corning Ry., the Fall Brook Ry. and the Pine Creek Ry., leased lines of the New York Central, have authorized meetings to be called of the stockholders of these roads at their respective principal offices, on March 16, to vote upon a proposition to consolidate the three lines. If the result is in the affirmative, as of course it will be, the new company will be known as the Geneva, Corning & Southern Ry., and will have a total mileage of 223 miles. As two of the subsidiary lines named are in this state, application is to be made to the Public Service Commission, Second District, for permission to make the consolidation.

GRAND TRUNK PACIFIC.—The G. T. P. Branch Line Co. has given notice of application to Canadian Parliament for legislation empowering the company to construct 325 miles of additional branch lines in Alberta. The lines to be chartered are one running south from Pembina crossing, on the main line, 100 miles to the headwaters of Little Pembina River; one running south 25 miles, from the main line along Embarras River to Macleod River, and one running 100 miles from near Calgary through Pincher Creek to the western boundary of Alberta.

GULF, TEXAS & WESTERN.—We are officially advised that company is now receiving bids for construction work on this line. It will run from Burrs Ferry to Lubbock, Tex., and will be about 500 miles long. Roy C. Megargel is Pres., 5 Nassau St., New York; John T. Witt is Ch. Engr., Jacksboro, Tex. Capital is obtained. Right-of-way is secured for about 200 miles and surveys are made. Contract for building the first 20 miles has been let to the GRIGSBY CONSTRUCTION CO., Jacksboro, Tex. Noted on Nov. 19.

ILLINOIS CENTRAL.—JOHN W. THOMPSON, Wainwright Bldg., St. Louis, Mo., has been awarded contract by this company for furnishing 2,000,000 cu. yds. of gravel ballast for use on the main and branch lines. This is said to be the largest contract of its kind ever made, and involves an expenditure of, approximately, $2,500,000. The work will be distributed over a period of three years, and the gravel will be supplied by Mr. Thompson's plant at Profit's Island, which is located in the Mississippi River, a short distance above Baton Rouge, La. The island is 7½ × 2½ miles in dimension, and has a capacity of more than 5,000 yds. a day. The ballast will be furnished for use on the Yazoo & Mississippi Valley line from Vicksburg to New Orleans; on the Baton Rouge, Hammond & Eastern, from Baton Rouge to Hammond, and on the main line of the Illinois Central from Jackson to New Orleans, a total trackage of about 250 miles.

INTERCOLONIAL RY.—The Dominion Government estimates provide the following sums for this line: Increased accommodation at Truro, N. S., $50,000; for cut-off at Moncton, N. B., $180,000; shops at Moncton, $400,000, and $100,000 for new rolling stock, and about $50,000 for general improvements to the roadbed. W. B. McKenzie is Ch. Engr., Moncton, N. B.

MEXICO.—A statement issued by the Mexican Federal Government shows that during the calendar year 1908 there were 557 miles of railway constructed in Mexico. The official figures show that there were 11,769 miles of railroad in operation in Mexico on Jan. 1, 1909. About two-thirds of this mileage is standard-gage and the remainder narrow-gage. It is estimated that less than 500 miles of new road will be built in this country during the current year.

The Board of Directors of the National Railways of Mexico have appointed the members of the Executive Committee who have power to select the officials of the company below that of president. This position is held by E. N. Brown, who was at the head of the government system of railroads before the merger of the Mexican Central was effected. The committee is as follows: E. N. Brown, Pablo Macedo, Gabriel Mancera and Samuel M. Felton.

NASHVILLE, FAYETTEVILLE & BIRMINGHAM.—This company has been chartered to build an electric railway to connect the cities named in the title. Capital stock, $50,000, all of which has been subscribed. Incorporators: John C. Diemer, Pres.; James A. Moores, Secy.; J. M. Robertson, Treas.; N. S. Boone, S. W. Fleming, G. F. Pitts and H. K. Bryson, with headquarters at Huntsville.

OREGON & WASHINGTON.—Contract has been let to CAUGHREN, WINTERS, SMITH & CO., of Seattle, Wash., for the construction of the Gray's Harbor branch, from Cosmopolis, Wash., on Gray's Harbor, to the main line of the O. & W. Portland-Seattle line, about 40 miles. Work is to be started at once.

PENNSYLVANIA.—The Legislature will consider a bill to carry out the State Railroad Commission's recommendation that the state give it power to control the capitalization of railroad, electric railway and other common carrier companies. This act, which was drawn by Judge N. Ewing and his fellow commissioners with the aid of W. H. Allen, provides effective state control. Every corporation under the commission's supervision is required, immediately upon passage of a resolution to submit to shareholders the question of increase of stock or bonds, to give the state commission written notice and to include in its printed or public notices a statement that the commission will receive objections to the proposed increase for 30 days thereafter. In case objections are filed, the commission may make a recommendation which shall be enforceable at law. In case none is entered, the matter will be one for control of the stockholders unless investigation should show that the increase would be prejudicial to public interests. The bill distinctly states that no increase shall be valid unless notice has been given to the state commission, and the present method whereby corporation shareholders waive notices of meetings to vote increases of capital, and the state gets no information of such a move until after the increase is made, is directly prohibited.

QUANAH, ACME & PACIFIC.—See Acme, Red River & Northern.

SOUTHERN PACIFIC.—Company has established at Bowman, a few miles from Auburn, Cal., a base from which it will construct improvements to its right-of-way over the Sierra Nevada Mountains, costing $25,000,000, according to press reports. The contemplated improvements will give the company two lines from Roseville to Truckee and a lower grade by 1,000 ft. than the present line traversed. Among the engineering feats involved is the construction of a tunnel six miles in length. Four years will be allowed for the completion of the tunnel. As headquarters for the work the company has leased two ranches and is now erecting on them $50,000 worth of buildings for the accommodation of the men who will be employed.

ELECTRIC RAILWAYS.

(denotes that this work is advertised in Engineering News.)*

NEW YORK, N. Y.—Judge Lacombe in the United States Circuit Court has issued an order granting permission to Frederick W. Whitridge, as receiver of the Third Avenue Railroad Co. and of the Union Railway Co., to construct and operate a double-track extension of the Third Avenue road from its present terminus at Fort George to and along Pelham Ave., in The Bronx, to Third Ave. and thence to the Southern Boulevard, to the entrance of the Zoological Gardens in Bronx Park. Thos. F. Mullaney is Ch. Engr., 621 Broadway.

CAMDEN, N. J.—An ordinance covering the construction by the Camden & Delaware Tunnel Co. of a tunnel under the Delaware River, between Philadelphia and Camden, and the running of a railway through it has been introduced in Camden City Council. A franchise for the tunnel project has already been granted by Philadelphia Councils. The ordinance was read and referred to the Committee of the Whole to meet on Feb. 18. Noted on Dec. 3.

WASHINGTON, D. C.—A bill has been introduced in the House of Representatives granting the Washington, Baltimore & Annapolis Ry. Co. a charter for a street railway through Florida Ave. to K St. to Sixth St., N. W., thence to H St. and down H St. to 13th St., with a single-track loop around 13th, E and 11th Sts. back to the double-track at H St. It is provided that the company may contract with the Washington, Baltimore & Annapolis Electric Railway, the Chesapeake Beach Railway, or any other company owning or operating a connecting line, for the joint management, lease or purchase of such line and operate the same in connection with or as an extension of the Washington, Baltimore & Annapolis Railway. Capital stock, $3,000,000. J. N. Shannahan is Gen Mgr., 801 Maryland Trust Bldg., Baltimore.

WINSTON-SALEM, N. C.—H. P. MacKnight, Ch. Engr. of the Crescent Elec. Ry. Co., Southern Pines, N. C., advises us that construction contracts will be let in March. Company itself proposes to do most of the work. The line will run from Winston-Salem to Stuart, Va., via Rural Hall, Capella Gap, Vade Mecum, Moore's Springs, Piedmont, Danbury and Sandy Ridge, N. C., 68.9 miles. Twenty miles are ready for track-laying. Surveys are made and right-of-way secured. Capital is partly obtained. E. Hillman, Aberdeen, N. C., is Pres. Noted fully on Dec. 3.

DECATUR, ALA.—It is planned to build an electric road from Decatur to Russellville, in Franklin County, about 45 miles, via Moulton, the county seat of Lawrence County. The promoters are W. H. Morris, of Russellville, and others.

YOUNGSTOWN, OHIO.—The City Council has passed an ordinance granting the Lake Erie & Youngstown Railway Co. a franchise to build its line into Youngstown. It will extend direct from Youngstown to Conneaut. John H. Ruhlman is Pres. Noted fully last week.

BENTON HARBOR, MICH.—We are informed that the Benton Harbor & St. Joseph Railway & Light Co. expects to build a 12-mile extension from Benton Harbor this spring, and will invite bids for the contract. H. C. Mason is Gen. Mgr., Benton Harbor.

CHICAGO, ILL.—The Chicago Railways Co.'s plans for rehabilitation of its system, as announced, provide for the expenditure of over $11,000,000 for the rebuilding of track, the purchase of new pay-as-you-enter cars, the erection and improvement of car stations, machine shops, and substations, and numerous other details of rehabilitation. In detail the expenditures will be along the following lines: 112 miles of track, including special work, $5,040,000; 350 double truck pay-as-you- enter cars, $2,100,000; new underground system, $1,252,983; completing Lincoln and Wrightwood Ave. car station, $81,000; "limits' car station, $192,530; Kedzie Ave. and Van Buren St. car station, $465,885; 22d St. and Ogden Ave. car station, $313,000; North and 48th Ave. car station, $457,750; car shops, $350,000; new rotaries for substations, $450,000; new trolley construction, $363,840; total, $11,096,988. It is estimated it will take $2,000,000 for the reconstruction work up to May 1; $3,000,000 up to July 1; $3,000,000 up to Sept. 1, and the balance will be expended before Feb. 1, 1910. The estimates of new construction include the following details: New rotaries for substations—Jefferson St. substation No. 1, 2,000 KW., $50,000; Milwaukee Ave. substation No. 2, 2,000 KW., $50,000; Lill Ave. substation No. 3, 6,000 KW., $210,000; 24th and Leavitt Sts. substation No. 4, 4,000 KW., $140,000; total, $450,000. New trolley construction—86.08 miles renewing trolley and setting back poles, $129,120; 26.08 miles extensions, $234,720; total, $363,840. The new underground system includes 2,000,000 duct ft. of tile to be laid this year for underground cable and 240 miles of cable for the transmission of electrical current. Noted on Feb. 4.

HOOPESTON, ILL.—The Interstate Traction Co. proposes to build an electric railway from Hoopeston through Rossville, Alvan and Bismarck to Danville. Capital stock, authorized, $500,000. J. S. McFerren is Pres.; A. H. Trego, Vice-Pres.; Nathan Bond, Secy.; C. C. Williams, Treas., all of Hoopeston.

SPRINGFIELD, ILL.—The Springfield, Beardstown & Quincy Ry. Co. will construct an electric railway from Springfield to Quincy. Capital stock, $150,000. H. H. Colby, Pres.; C. W. Houghton, Vice-Pres.; R. E. Bone, Secy. and Treas., all of Pittsburg; G. L. Harnsberger, of Springfield, is Ch. Engr.

BLUE ISLAND, ILL.—The Chicago, Blue Island & Joliet Traction Co. will place contracts soon for building 17 miles of new track and the electrification of 2¼ miles of steam road. W. H. Conrad, 1145 First National Bank Bldg., is Gen Mgr. and Pur-Agt. of the Chicago & Southern Traction Co., which operates and owns the Chicago, Blue Island & Joliet line. Notes on Jan. 21.

DES MOINES, IOWA.—Announcement is made that the Des Moines, Winterset & Creston Electric Ry. Co. will commence work during this year on its proposed electric road, which is to extend from Des Moines to Winterset, Macksburg and Creston, Iowa. It will be 60 miles in length. The company expects to furnish power for lighting. Headquarters, Iowa Loan & Trust Bldg., Des Moines. W. D. Skinner, Des Moines, Pres.; E. B. Steere, Des Moines, Vice-Pres.; Milo Ward, Des Moines, Secy.; S. D. Alexander, Winterset, Treas. L. H. Hixson, Des Moines, is Gen. Mgr. On Oct. 22 it was noted that construction contract had been awarded to the INTERURBAN CO., 25 Broad St., New York.

CLINTON, IOWA.—The Central Ry. Co. of Iowa will begin construction work this spring. It will connect Clinton, Elvira, Bryant, Goose Lake, Charlotte, Delmar, Maquoketa, Hurstville, Dugan, Garry Owen, Cascade, Rockdale and Dubuque. The system will be 83 miles in length and will be operated by electricity. Thos J. Wilcox, Clinton, is Pres. and Gen. Mgr.; L. E. Wiley, Chicago, Ill., Vice-Pres.; D. L. Wilcox, Clinton, Secy.; M. A. Wilcox, Clinton, Treas. Noted on Oct. 15.

LAWRENCE, KAN.—Albert Emanuel and W. R. Sullivan, Dayton, Ohio, are reported to be considering the construction of a street railway in Lawrence.

WACO, TEX.—City Council has passed an ordinance granting to Max Elser and his associates a 35-year franchise to construct and operate an electric interurban railway through this city.

PARIS, TEX.—The Paris & Mount Pleasant R. R. Co. has been incorporated to build an electric railway from Paris passing in a southeasterly direction through the Counties of Lamar, Red River and Franklin into the County of Titus and to Mount Pleasant, a distance of about 50 miles. Headquarters, Paris. Capital stock, $75,000. Incorporators: R. F. Scott, T. J. Record, S. W. Williams, N. H. Ragland, J. J. Culbertson, H. P. Mayer, A. N. Rodgers, all of Paris; and H. A. Wilson, C. O. Lide and E. S. Lillenstern of Mount Pleasant.

WOODWARD, OKLA.—The Woodward Interurban Railway Co. has been chartered with $25,000 capital to build a line from Woodward to Fort Supply, Okla.; Buffalo and Englewood, Kan.; also to Mutual, Richmond, Seiling and Canton, Okla.; total length, 140 miles. Headquarters at Woodward. The directors are Jas. H. Spurlock, W. Homer Wilcox, John J. Bequot, Joseph A. Innis, William A. Payne, Robert E. Innis, Frank K. Tucker, Earl B. Workman and Ben F. Willett, all of Woodward.

PASCO, WASH.—J. B. Hubrich has applied to the City Council for a franchise for a street railway system, guaranteeing to have cars running within one year from granting of franchise and will deposit $10,00 guarantee. Referred to the Street Committee.

EUGENE, ORE.—The Commissioner's Court of Lane County has granted to the Lane County Asset Co., recently organized at Eugene, a franchise to build an electric railway over the county roads from Eugene to Florence. The franchise provides that the survey be completed within 90 days from the granting of the franchise; 15 miles of the road must be completed in the first year, 25 miles the second year and the entire road built within three years. The applicants for the franchise are George M. Miller, J. W. Zimmerman, Charles H. Fisher and Fred Fisk, all of Eugene.

PORTLAND, ORE.—The Portland, Baker City & Butte Electric Ry. Co. has been incorporated in Oregon with $2,000,000 capital and headquarters at Portland. The company proposes to build a line from Portland, Ore., east through Clackamas, Wasco, Wheeler and Grant Counties to Baker City, Baker County, thence east across Idaho to Butte, Mont., about 500 miles. The incorporators include C. D. Charles, M. W. Gill and H. J. Martin, of Rowe & Martin, all of Portland.

VALLEJO, CAL.—R. L. Macfarlane, the local representative of the Randall, Wright & Trowbridge Co., Oakland, Cal., which is seeking a street railway franchise in Oakland, has announced that the company has determined to enlarge upon its plans, and will build a railway from Vallejo to Benicia, and also to include the Vallejo White Sulphur Springs in its route. Noted on Dec. 24.

SALT LAKE CITY, UTAH.—Bonds of the Salt Lake & Ogden Ry. Co. have been underwriten by the Harris Trust & Savings Bank of Chicago. Final arrangements are being made for electrifying this railroad, and contracts are now being closed for material and equipment for use in connection with the change of motive power. The road will be equipped with the overhead trolley, and high-speed interurban cars will be run hourly between Salt Lake City and Ogden. H. A. Strauss, 201 Stock Exchange Bldg., Chicago, Ill., is Consult. Engr. of the company and is preparing specifications for the equipment. Noted on Jan. 28.

LIGHT AND POWER PLANTS.

(denotes that this work is advertised in Engineering News.)*

BOSTON, MASS.—The Edison Electric Illuminating Co. of Boston, has let contract to the GENERAL ELECTRIC Co., Schenectady, N. Y., for two 18-000-HP. steam turbines to replace the two 7,500-HP. turbines now in operation. W. H. Atkins, 39 Boylston St., Boston, is Gen. Supt.

WINDSOR LOCKS, CONN.—The Connecticut River Co., of New Haven, Conn., announces that its plans to build a dam across the Connecticut River between Windsor Locks and Enfield call for the utilization of 10,000 HP. now going to waste. An additional canal will be constructed, and the company says that the scheme will not interfere with any navigation projects. The company proposes to generate electric power to be sold for industrial purposes. J. K. Punderford, New Haven, is Gen. Mgr.

FAIRFIELD, CONN.—The United Illuminating Co. of New Haven and Bridgeport has perfected arrangements for taking over the charter of the Fairfield Power & Lighting Co. and will install an electric lighting system in the town at Fairfield. The Fairfield company has a franchise which has never been utilized. C. A. Paul, Bridgeport, is Mgr.

SYRACUSE, N. Y.—The Central City Refrigerating Co. is erecting a cold storage and electric plant at West Fayette and West Sts., Syracuse. Bids will be received by R. S. M. Mitchell, Kirk Bldg., Syracuse, N. Y., Consulting Engr., for the following equipment: Four gas producer units, with a rating of 250-HP. each; two 500-HP. gas engines for direct connection to generators; two 300-KW. generators, direct connected type; two 200-ton direct motor driven vertical single-acting refrigerating machines; one circular or spiral conveyor; seven freight and one passenger elevators and motor-driven ventilating apparatus.

ROCHESTER, N. Y.—The Rochester Railway & Light Co. has let a contract to the WESTINGHOUSE ELECTRIC & MFG. CO. for three 1,000-KW. 60,000-volt, stepdown transformers to be placed in Station No. 33 in Elmwood Ave. These transformers will be used to reduce the voltage from Niagara Falls from 66,000 to 550 to be transmitted by underground cable to operate the street car lines in the city. The station has an output of about 6,000 KW. Also to the GENERAL ELECTRIC CO., Schenectady, N. Y., for a 136-ton 3,000-HP. frequency changer. The set consists of two 3,000-HP. generators, one of 25-cycle and the other of 60-cycle. The function of the machine is reversible, one unit serving as a generator and the opposite unit as a motor. R. M. Searle, Rochester, is Gen. Mgr.

NEW YORK, N. Y.—Bids were received as follows on Feb. 9 by John F. Ahearn, Pres. Boro. of Manhattan, for the completion of the electric lighting and power wiring system at the City Hall Bldg., City Hall Park, New York: Fidelity Electric Contracting Co., 16 East 23d St., $6,200; Conden & De Young, $11,100; Lord Electric Co., $9,460; T. F. Jackson, $6,885; E. J. Duggan, $6,980; Commercial Construction Co., $11,835.

PHILADELPHIA, PA.—John E. Reyburn, Mayor, has approved the plans for electrically lighting Market, Broad, Walnut, Chestnut, Spruce, Arch and other streets in the centre of the city, which were prepared by the Chief of the Electrical Bureau. The project contemplates erection of ornamental poles and electric lights of high candle power. The plans provide also for clearing Market St. of all overhead trolley wires, excepting the trolley cables, by substituting for the sidewalk poles and transverse wires a line of ornamental electric light poles between the street railway tracks, which will carry also on cross arms the trolley cables. On streets that have single car tracks the poles will be close to the curb line, as at present. Each of the combination poles between the tracks will be surmounted by three electric lamps of 2,000 c.-p., each inclosed by porcelain globes to diffuse and soften the light. There will be from three to four poles in each block. At each of the four corners of street intersections will be erected an ornamental standard not less than 20 ft. high, bearing two 2,000-c.p. lamps in porcelain globes. For lighting Broad, Walnut, Chestnut, Spruce and other streets embraced in the plan, each corner of street intersections will be illuminated by similar standards, and two additional standards, midway between cross streets, will be erected on either sidewalk respectively. It is suggested that the scheme of lighting Market St. shall embrace the entire length of that thoroughfare from Sixth St. to the Schuylkill River.

JOHNSTOWN, PA.—The Johnstown & Gallitzen Ry. Co., of Johnstown, Pa., is ready to receive bids for steam power plant equipment. It will generate current at about 13,000 volts with two units of 750 KW. each. One sub-station will be located at the power station, which is approximately the center of the distribution system, and an additional sub-station will be built at each end of the line. Current will be transformed and stepped down at the sub-stations to 600 volts, direct connected, as the company proposes to operate cars for a distance of 2¼ miles over the Johnstown Passenger Ry. Office, Suppes Building, Johnstown, Pa.

BERLIN, MD.—See item under Water Supply-Irrigation.

FREDERICKSBURG, VA.—The Electric Generating Co., of Fredericksburg, Va., will build a plant to be equipped with a horizontal turbine water wheel, two 38-KW. direct current exciters, 25-ton, 3-motor traveling crane, etc. The building will be 42 x 60 ft. and, with the equipment, will cost about $150,000. R. M. Van Dorn, Exchange Hotel, Fredericksburg, is Engr.-in-Charge of the work.

ROCKFORD, TENN.—The Rockford Cotton Mills, Ernest Koella, 2326 Highland Ave., Knoxville, Tenn., Mgr., is making arrangements to rebuild the electric plant, recently destroyed by fire. The plant will be operated by water power and will furnish electricity to light the mill and town.

COLUMBUS BARRACKS (Columbus postoffice), OHIO.—Bids were received on Feb. 8 by Capt. H. J. Hirsch, Constr. Q. M., for (a) furnishing and installing transformer, etc., and making underground electric service connections to new post hospital, new bakery, (b) disinfecting plant, and new hospital corps sergeants' quarters at this post. The following bids were received: James Ferry & Sons, Charleston, W. Va., at $4,985; Newark Electric Co., Newark, Ohio, at $5,792.

CANAL DOVER, OHIO.—We are officially advised that plans and specifications for the construction of a muni... Canal Dover, will be ... Feb. 16, at No. 621 ... Trust Bldg., Columbus. ... ris is Consulting Engr.

DETROIT, MICH.—E... Frank T. Mistersky, G... nicipal electric light p... $348,248, have been app... of Estimates and will ... City Council, it is stated ... maintenance of the plant ... recommendation for the ... ment for 12-75 flame la... over the old style Brush ... sion asks for $180,791, by ... the city about $6,000. Es... sions and improvements ... tion of a new sub-station ... ern part of the city at a ... conduits on several stre... lamp locations with nece... $21,419; installation of 4... tallic flame arc lamps, ... arc lamp system, $47,6... new boilers with equipment ...

CHICAGO, ILL.—The Chi... & Joliet Traction Co. will l... ing the next two months for ... of 17 miles of new track a... 2½ miles of steam railway ... by electricity. The compa... contracts also for a 500-K... verter and construction of a ... H. Conrad, First National B... cago, Ill., is Gen. Mgr.

Bids will be received by W... City Electrician, 76 Fifth Ave... for furnishing and installing ... ment of Electricity electric ... accordance with specifications ... above office as follows: 1,520 ... tor, paper-insulated, No. 00 l... ble; 150 ft. single-conductor, ... lated, No. 00 lead-incased ca...

CHICAGO, ILL.—See under Electric Railways.

CRIVITZ, WIS.—ALEXANDER & WILLIAM McGACOK have just been awarded the contract to construct a dam ... the high falls on the Peshtigo River for the Northern Hydro-Electric Power Co., of Green Bay, Wis. Work on the project will begin as soon as the weather will permit. The dam will be situated 14 miles west of Ellis Junction. D. W. Mead, Madison, Wis., is Ch. Engr. Noted on Jan. 21.

UNION, IOWA.—The Union Electric Light Co., which was recently granted a franchise to operate an electric light system in Union, contemplates the construction of an electric plant at a cost of $6,000. E. A. Hunt is Secy.

MINNEAPOLIS, MINN.—The L. S. Donaldson Co. has awarded the contract for boilers for the central power plant for the Donaldson buildings to the FAIRBANKS-MORSE CO., of Chicago, Ill. The contract calls for eight boilers at a cost of $30,000.

MARYVILLE, MO.—The plant belonging to the Rockford Electric Light Co., which was destroyed by fire, will be rebuilt at once. James L. Clark is Mgr. of the Company.

WHITE BIRD, IDAHO.—The White Bird Electric Light & Power Plant, White Bird, Idaho, has been purchased by B. Q. Davis, who will build a new power-house and install a water-wheel, in addition to which about one mile of new flume will be built.

ST. JOE, IDAHO.—The Chicago, Milwaukee & Puget Sound R. R. Co. will award contracts for the construction of two electric power plants on the Missoula River at St. Joe, Idaho. Each plant will have an output of from 20,000 to 25,000 HP. The company proposes to operate its trains between St. Regis, Mont., and St. Joe, Idaho, by electricity as soon as the plants are completed. C. B. Pride, of Spokane, Wash., is Engr.

WINNIPEG, MAN., CAN.—Bids are asked by M. Peterson, Secy., Bd. of Control, Winnipeg, until March 2 for the supply of insulators and material for the erection of a telephone line between Point du Bois and Winnipeg; the erection of a transmission line between Point du Bois and Winnipeg, and supply of certain repair-shop equipment. Individual bids will also be received as follows: For insulators; telephone line; erection of transmission line; repair-shop equipment. As a further alternative bidders may include or group the bids for furnishing the telephone line and erection of transmission line. Plans and specifications may be seen at the office of Smith, Kerry & Chace, Confederation Life Bldg., Toronton, Ont., Can., consult. Engrs.

BRIDGES.

(denotes that this work is advertised in Engineering News.)*

MILO, ME.—The city is contemplating the construction of a bridge over the Piscataquis River. Estimated cost, $8,000.

BRIDGEPORT, CONN.—The PAWCUS MACHINE CO., 2830 Smallman St., Pittsburg, manufacturers of cut gears, has received a contract for the operating machinery for a double-leaf Scherzer bascule bridge at Congress St., Bridgeport.

MAMARONECK, N. Y.—Bids will be received by the Board of Village Trustees, Charles W. Buckter, Clk., until F... 24 for constructing a concrete bridge and ... grading and otherwise improving 750 ... ft. of Ward Ave. John M. Farley is Eng... 5 Court St., White Plains.

*WOODSTOWN, N. J.—Bids will be received by the Bridge Committee of the Board of Chosen Freeholders of Salem County until 1.30 p. m., March 8, at Fren... Hotel, Woodstown, N. J., for the steel s... erstructure of a bridge over Salem C... k, near Woodstown. Plans and specificati... can be had by applying to L. S. Prickl... Woodstown.

GLENDON, PA.—The County Commissioners on Feb. 5 awarded to SIG... WOOD & POORE, of Riegelsville, Pa., the co... tract for

constructing a steel bridge over the Lehigh Canal and high Valley R. R. tracks at Glendon, at $14,895. There were nine other bids for the work, the highest being $22,207 and the lowest to the successful bidders, at $17,811.

SOUTH[illegible]K, PA.—The Pennsylvania R. R. Co., A[illegible]der C. Shand, Ch. Engr., Philadelphia, [illegible]ceiving bids for widening the stone arch [illegible]ge over the Conemaugh River west of [illegible] Fork.

BALTI[illegible], MD.—Westinghouse, Church, Ker & C[illegible]New York, have completed surveys, pr[illegible] estimates, etc., and submitted a r[illegible] to the Merchants' and Manufacturers' [illegible]ociation, Thomas Boggs, Secy., Baltimor[illegible] and Hopkins Pl., on the feasibilit[illegible] constructing a bridge across Chesapea[illegible]lay, connecting Baltimore with the East[illegible]shore. The report recommended a rolling [illegible]type of bridge. Estimated cost, $5,000,00[illegible]

DANVI[illegible], VA.—The Street and Bridge Committ[illegible]ave adopted a report recommending erec[illegible] of an iron bridge across the Dan Riv[illegible] and the paving of West Main St. Estimated [illegible]ost, $100,000.

COLUM[illegible], S. C.—The contract will soon be award[illegible] for the construction of a reinforced-con[illegible]rete culvert in Main and Whaley Sts. A. W. Edens is City Engr.

YORKVILLE, S. C.—Cherokee and York counties will jointly construct a bridge over the Broad River at or near Howell's Ferry.

MAGNOLIA, MISS.—The Pike County Board of Supervisors has adopted plans and specifications for the construction of two steel bridges, one across the Bogue Chitto River at Dillon, and the other across Magee's Creek at Tylertown.

PICAYUNE, MISS.—Plans and specifications are asked by the Board of Supervisors of Pearl River County, Poplarville, Miss., for the construction of a steel bridge over the Hobolochitto River near here.

CLEVELAND, OHIO.—Bids are asked until 11 a. m., March 6, by the County Commissioners, William F. Black, Clk., for the construction of bridge work, per report No. 2217, new substructure, Mastick Road, Rocky River, report No. 2218, steel bridge, Mastick Road, over Rocky River. A. B. Lea is County Surv., Cleveland.

ZANESVILLE, OHIO.—Bids are asked until noon, March 8, by the Commissioners of Muskingum County for the erection of the superstructure of a highway bridge over the North Fork of Meigs Creek in Meigs Township. The bridge is to consist of one span 85 ft. in length with one roadway 14 ft. wide in the clear, in accordance with plans, specifications and estimates on file in the office of the County Auditor. Bids are also invited on any other plan at the option of the bidder, and such bids must be accompanied with plans, specifications, etc. L. E. Breisford is County Audr.

INDIANAPOLIS, IND.—The bridge across the canal at 24th St. will be repaired by the city. Joseph L. Hogue is City St. Comr.

INDIANAPOLIS, IND.—The Board of Public Works will soon ask for bids for the construction of two reinforced concrete bridges, one at the 13th St. crossing of canal and one at Emerson Ave. crossing of Pleasant Run. Estimated cost, $4,000 and $15,000, respectively. Blaine H. Miller is City Engr.

CHICAGO, ILL.—Bids will be received until 11 a. m., Feb. 18, by the Department Public Works, John J. Hanberg, Comr., for furnishing material, repairing and reinforcing the Van Buren St. Bridge, consisting of renewing the structural steel support for the counterweights at the rear end of the leaves, placing an additional roadway stringer under each inner street car rail on the bridge and approaches, reinforcing the cantilevering parts of the stationary floors, etc.

MARSHALLTOWN, IOWA.—Contracts for the construction of six reinforced-concrete bridges have been awarded by the Board of Supervisors to M. M. STARK & CO., Des Moines, Iowa, at about $11,667.

ST. PAUL, MINN.—The ROMER CONSTRUCTION CO. was awarded the contract on Feb. 5 by the Board of Park Commissioners for the construction of a concrete bridge on the river boulevard near Summit Ave., at $6,964. The bridge will have a span of 108 ft.

WESTMORELAND, KAN.—Bids are asked until 2 p. m., Feb. 25, by H. G. Huckstadt, County Clk., for constructing a 300-ft. steel approach to the Stockdale bridge over the Blue River.

TOPEKA, KAN.—All bids for the construction of a bridge across Soldier Creek at Central Ave., have been rejected by the city. Bids were opened on Feb. 1.

GRAFTON, N. DAK.—Bids are asked until 2 p. m., March 2, by Q. M. Fraser, County Audr., for the construction of all pile and steel bridges to be erected during the year 1909, and also for repairs to bridges.

GREEN RIVER, WYO.—The County Commissioners are considering constructing a bridge over the Green River, H. Riddle is County Clk.

ST. LOUIS, MO.—The city has retained Boller & Hodge, Consulting Engrs., 1 Nassau St., New York, to prepare plans for the construction of a bridge here. The structure will probably consist of three spans of about 700 ft. each, carrying two railroad tracks, two roadways, two trolley tracks and two sidewalks. The foundations are to be of masonry carried by pneumatic process to rock. The sum of $3,500,000 is available to cover river crossing and necessary approaches. Plans are being prepared. Bids will be asked for several months.

W[illegible]ERFORD, TEX.—The city and Par[illegible] will jointly construct a concrete [illegible]s across Town Creek, on North Main [illegible]Estimated cost, $8,000.

SA[illegible]A, OKLA.—The Creek County Comm[illegible]ners and the Mannford Township Board [illegible]ntemplate jointly constructing an 800-ft. [illegible]ge over the Cimarron River.

SPOKANE, WASH.—The City Council has decided, it is reported, to construct a concrete bridge at East Olive St. Estimated cost, about $80,000.

SAN BERNARDINO, CAL.—The CHARLES D. SHEELEY CO., McPhee Bldg., Denver, Colo., was awarded the contract on Feb. 1 by the Board of Supervisors for the construction of the First St. bridge at Lytle Creek, at $9,972.

PHOENIX, ARIZ.—We are officially advised by Wright B. Heard, Pres., Phoenix & South Side Bridge Co., that a bridge across the Salt River at Central Ave. is contemplated by the County of Maricopa and the citizens on the south side of the Salt River. The construction of a concrete-steel structure of 28 arches, 2,100 ft. in length is being considered, and the National Bridge Co. are about to submit plans for the structure. Bids may be asked in March or April.

BUILDINGS.

(denotes that this work is advertised in Engineering News.)*

ROSLINDALE (Boston post-office), MASS.—Bids are asked until noon, Feb. 23, by the Schoolhouse Commissioners, Boston, for building an addition to the Longfellow school, South and Hewlett Sts., Roslindale, Boston, Mass.; also for installing plumbing system in said Longfellow addition.

MELROSE, MASS.—Bids will be received at the office of the Engineer and Superintendent of Public Works, City Hall, Melrose, until 10 a. m., Feb. 23, for furnishing all material and doing all labor necessary to construct additions to the present high school building. In accordance with plans and specifications by Tristram Griffin, Arch., 114 State St., Boston, Mass. George O. W. Servis is Engr. and Supt. Pub. Wks.

BOSTON, MASS.—We are officially advised that the WELLS BROS. CO., 160 Fifth Ave., New York, has been awarded the contract for constructing the building for the John Hancock Mutual Life Insurance Co. The building will be of stone, ten stories high. Shepley, Ruttan & Coolidge, Ames Bldg., Boston, are Archs.

HARTFORD, CONN.—The Technical High School Committee, A. A. Welch, Chn., has accepted the plans of Davis & Brooks, of this city, and will make a report at once to the Common Council. The building will be of brick and about the same size as the present high school. It will be thoroughly equipped with modern appliances.

NEW YORK, N. Y.—Plans have been filed for a new 6-story apartment house of Renaissance design to be built for the Belgrade Realty Co., at the southeast corner of Broadway and 136th St. It will be 99.11 ft. front and 95 ft. deep, and contain 31 suites of apartments. Cost, $200,000.

Plans were filed on Feb. 5 for a 6-story apartment house for D. M. Krulewitch, at the northwest corner of St. Nicholas Ave. and 180th St. It is to be of modern French Renaissance design, with a frontage of 100 ft., and a depth of 90 ft., and will contain 33 suites of apartments. Cost, $200,000.

A 6-story apartment house, with 30 suites of apartments, will be erected for Emanuel Doctor, at the southwest corner of Edgecombe Ave. and 150th St. It is to be of brick with trimmings of limestone and terra cotta, and will have a frontage of 99.11 ft. and a depth of 90 ft. Cost, $140,000.

NEW YORK, N. Y.—Deeds were signed on Feb. 9 by which the new site at 67th St. and Ave. A passed into the hands of John S. Kennedy, Pres. of the Presbyterian Hospital Corporation. A new hospital building will be erected there. The new hospital will be built on the block bounded by 67th and 68th Sts., the East River and Ave. A. It will be on a bluff about 50 ft. above the river level and north of the Rockefeller Institute for Medical Research. The cost of the land was about $500,000.

FORT SLOCUM, N. Y.—Bids are asked by the Constructing Q. M., U. S. A., until 10 a. m., March 10, for construction, plumbing, hot air heating and electric wiring in one double set of hospital sergeants' quarters.

NEW YORK, N. Y.—John J. Keit closed the final contracts on Feb. 8 for building the new Apollo Theater on Long Acre Square. Plans for the structure have been filed. The building will cost $600,000. Weber & Rush will own the Apollo. It is to cover the 100.4 × 140 northeast corner of Broadway and 47th St., owned by the Westcott estate. Over the theater will be built a 10-story office structure.

Plans have been filed with the Buildings Superintendent for a 6-story apartment house, with suites of apartments, on 181st St., east of Fort Washington Ave., and a 6-story apartment house, with 37 suites, on Fort Washington Ave., south of 181st St., to cost $120,000 each, and to be built from designs by Sommerfeld & Steckler, Archs., 19 Union Square, for the Owners' Syndicate Co., Maximilian Morgenthau, Pres., completing a group of five houses planned for this location by the company. Plans for the other three have been filed.

Lorenz F. J. Weiher, Arch., 103 East 125th St., is preparing plans for seven 6-story apartment houses, each 40 × 87 × 100 ft., to be erected by Mary Ehrmann on the north side of 136th St., 100 ft. east of Brook Ave., and for seven similar houses to be erected on the abutting lots on the south side of 137th St. Estimated cost of the structures, $700,000.

The new George Borgfeldt & Co. building, to be erected on the site of the Westminster Hotel, at the northwest corner of Irving Pl. and 16th St., will contain about 250,000 sq. ft. of floor space. In the basement a modern high pressure plant, with boilers, engines, dynamos, motors, etc., will be installed to generate the power for the eight high-speed elevators and four sidewalk elevators, light, heating and ventilating system, box chutes, pneumatic tubes, sprinkling system and other machinery. The main floor will be devoted to the executive offices. The vestibule, lobby and grand stairway from the main to the second floor will be finished in marble. The floors from the second up will be used exclusively for the display of samples in the various lines handled by this house. The penthouse will contain a gallery for the photographing of samples, etc. Shipping facilities will be in both Irving Pl. and 16th St.

BUFFALO, N. Y.—Plans are being prepared by Howard Beck, City Arch., 12 Erie County Bank Bldg., for a 24-room school building, three stories, of brick and steel fireproof construction with slate roof, steam heat, etc., to be erected on West Delavan Ave., near Chapin Parkway. Cost, $150,000.

SYRACUSE, N. Y.—Bids are asked by the Building Committee, Chamber of Commerce rooms, Syracuse, until March 1, for the construction of a 400-room fireproof steel frame hotel building on Jefferson St., Syracuse, for the Onondaga Hotel Co., Inc. The building will be eleven stories, 132 × 159 ft. Separate bids will be received on the steel work, including the erecting and furnishing of about 1,000 tons of material. Separate bids will also be received at the same time on a complete power, lighting, heating and refrigerating plant, including boilers, pumps, stokers, grates smoke connections and setting, boiler trimmings, engines, generators, switchboards, motors, ventilating apparatus and icemaking and refrigerating machinery.

PHILADELPHIA, PA.—E. F. Durang & Son, Archs., have been commissioned to prepare plans for a new church edifice and rectory for the Roman Catholic parish of St. Francis Assisi, Germantown, to be built at Logan and Greene Sts. Cost, about $150,000. The buildings will be of granite in the Norman style of architecture, the church one story high, 68 × 160 ft. in dimensions, and the rectory three stories, 35 × 50 ft. The church will seat about 1,200 persons.

Brockie & Hastings are preparing plans for additional cottages for the Seybert Institution for Poor Children, Meadowbrook.

A Polish college will be constructed here at Allegheny Ave., between Cedar and Chatham Sts. The building will be a 3-story steel and frame structure, of brick and wood, 160 × 126 ft. It will be built by the FILBERT CONSTRUCTION & PAVING CO., of this city. On the first floor will be a chapel and theater. In the latter instruction in the dramatic arts will be given. A gymnasium, equipped with apparatus for physical culture, will be in the rear of the theater. On the roof will be constructed an astronomical observatory. J. A. Godrycz, rector of St. Casimer's Polish Catholic Church, Shenandoah, Pa., is interested. Cost, $70,000.

McKEESPORT, PA.—Gilbert F. Myler, Pres. the McKeesport Land Improvement Co., will shortly award contracts for the furnishing of all materials and the construction of 100 modern houses at what is known as Portvue, where the company owns several hundred lots. The houses will all be on the cottage order, and will cost about $2,500 each.

BALTIMORE, MD.—The State Tobacco Warehouse Commission on Feb. 8 rejected all bids for the construction of a new state warehouse on Light St. as excessive. List of bidders noted on Feb. 11. New bids are asked until noon, Feb. 20.

SHREVEPORT, LA.—A site for a new Methodist church in this city to be located on Jordan St., has been donated and a building to cost from $40,000 to $50,000 will be erected. James S. Noel, of this city, is interested.

CINCINNATI, OHIO.—We are officially advised that bids will be received in September for the construction of the Douglass school building. Garber & Woodward are Archs., 907 Andrews Bldg., Cincinnati. Cost, $160,000.

We are officially advised that bids will be asked in September for the construction of the Winton Pl. school building, two stories high, of concrete, brick and stone. Cost of building, $115,000; of equipment, $50,000. Samuel Hannaford & Sons are Archs., Hubert Block, Cincinnati.

WINONA, IND.—The Twentieth Century Tithe Covenant Association has ordered plans for the construction of a church or home at Winona. George W. Brown, W. C. Van Arsdel and Rev. F. O. Ballard are Trustees.

GARY, IND.—Contract for the construction of new municipal building, city hall, police and fire station has been let to GALLAGHER & WILLIAMS, of Gary, at $38,278. James E. Hammons & Son, Gary, are Archs.

HIGHLAND PARK, MICH.—The Board of Education will receive bids of school site 35,000 to 50,000 sq. ft. north of Pasadena Ave., until 8 p. m., Feb. 18. Joseph Marshall is Secy.

DIXON, ILL.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Dept., Washington, D. C., until 3 p. m., March 22, for the construction (including plumbing, gas piping, heating, apparatus, electric conduits and wiring) of the U. S. post-office at Dixon, in accordance with the drawings and specification, copies of which may be had from the Custodian of the site at Dixon or at the discretion of the Supervising Architect.

MOLINE, ILL.—Bids are asked by James Knox Taylor, Superv. Arch., Treasury Department, Washington, D. C., until 3 p. m., March 10, for the construction complete of the U. S. post-office at Moline.

CHICAGO, ILL.—See under Electric Railways.

SHENANDOAH, IOWA.—Bids were received as follows on Feb. 15, by James Knox Taylor, Superv. Arch., Treasury Department, Washington, D. C., for the construction of a post-office building at Shenandoah: Northern Construction Co., Milwaukee, Wis., $63,500; Scheurmann Lumber Co., Ltd., Saginaw, Mich., $61,638; Parsons & Kiene, Omaha, Neb., $60,015; General Construction Co., Milwaukee, Wis., $63,520; M. Yeager & Son, Danville, Ill., $66,490; W. W. Walsh, Clarinda, Iowa, $54,790. Feb. 1, 1910.

ST. PAUL, MINN.—Herman Kretz & Co., Archs., New York Life Bldg., are preparing plans for the construction of a 5-story pressed-brick and cut-stone reinforced-concrete fireproof store and office building to be built at Seventh and Cedar Sts., to replace the structure destroyed by fire recently. Cost, $50,000.

George J. Ries & Co., 918 Thomas St., are preparing plans for a pressed-brick and cut-stone fireproof church to be built by St. Agnes Catholic Church, Rev. J. M. Soines, Pastor, at Kent and Thomas Sts. Cost, $100,000.

E. L. Masqueray, Arch., 312 Dispatch Bldg., is taking bids on the general construction of a pressed-brick and cut-stone church for St. Louis (French) Catholic Church to be built at Tenth and Cedar Sts. Cost, $50,000.

ALEXANDRIA, MINN.—James Knox Taylor, Supery. Arch., Treasury Department, Washington, D. C., has awarded contract for the construction of a post-office at Alexandria, to EARLE & AIKEN, Alexandria, at $40,358. March 1, 1910.

CARTHAGE, MO.—Bids will be received until 10 a. m., Feb. 20, by the Building Committee for the furnishing materials and constructing a building for the Y. M. C. A. of Carthage. Plans and specifications can be seen at the Carthage National Bank. P. E. Hannum is Secy. Com.

ST. LOUIS, MO.—Bids will be received by James A. Smith, Comr. Pub. Bldgs., until noon, Feb. 24, for the erection and completion of a 3-story and 1-story brick building to be known as the Eighth District police station and patrol wagon house at the northwest corner of Laclede and Leffingwell Aves. Cost, $25,000.

SAN ANTONIO, TEX.—Mrs. E. A. T. Winkesnease, Pres. San Antonio Club and Opera House Association, is planning the erection of a 14-story steel structure to cost about $1,000,000. Work will start at once. It is to be used for a department store and opera house. The new building will occupy the sites of the present Grand Opera house and the Winkes building adjoining. The property runs from Alamo Plaza to Losoya St.

LOS ANGELES, CAL.—The Board of Supervisors on Feb. 2 awarded contract for construction of new administration building, medical pavilion and consumptive ward of County Hospital to C. LEONARDT, at $114,900, the lowest bid submitted.

Steam-heating contract was awarded to NEWELL BROS., at $3,730, also lowest bidders. New bids will be asked for plumbing and elevator contracts.

SAN FRANCISCO, CAL.—We are officially advised that the contract for the construction of the Argonaut Club building has been awarded to the WEBSTER-MACE CONSTRUCTION CO., Merchants' Exchange Bldg. Cost, $95,000. Sylvian Schnaitbacher is Arch., 787 Market St., San Francisco.

SAN FRANCISCO, CAL.—The Board of Public Works on Feb. 10 awarded the plumbing and gas fitting contract for the Garfield School to W. S. SNOOK & SON at $4,646, and the heating and ventilating to HENSHAW, BULKLEY & CO., Fifth and Cypress Sts., at $11,000.

LOGAN, UTAH.—James Knox Taylor, Superv. Arch., Treasury Department, Washington, D. C., has awarded contract for the construction of the post-office building at Logan, to the GEORGE HINCHLIFF CO., 188 Madison St., Chicago, Ill., at $57,500; March 1, 1910. Bids opened on Jan. 26.

TORONTO, ONT.—Bids are asked until noon, Feb. 23, by Joseph Oliver, Mayor, and Chn. Bd. of Control, for the various works required in the erection and completion of a transportation building on the Exhibition Grounds, Toronto.

Plans and specifications may be seen, and all information, together with forms of proposal, obtained at the office of George Gouinlock, Arch., Temple Bldg., Toronto.

WINNIPEG, MAN.—C. H. Enderton is having plans prepared for a large office and business block on Portage Ave.

N. J. Breen, of this city, is having plans prepared for a large apartment block to be erected this spring.

WATER SUPPLY—IRRIGATION.

(denotes that this work is advertised in Engineering News.)*

FORT WARREN (Boston post-office), MASS.—Bids are asked until 10 a. m., March 11, by Capt. R. H. Rolfe, Constructing Q. M., U. S. A., 263 Summer St., Boston, for constructing meter chambers and installing water meters at Fort Warren and Gallup's Island.

CENTRAL FALLS, R. I.—The Board of Aldermen has passed a resolution providing for the construction of a 16-in. water main in Broad St. from Central St. to Hunt St. Estimated cost, $15,000.

OGDENSBURG, N. Y.—Plans are being prepared for the abandonment of Oswegatchie Creek as a source of water supply and for the construction of a sand filtration plant for purifying the St. Lawrence River water and for erecting a standpipe and new high pressure mains. Estimated cost, about $175,000.

COHOES, N. Y.—The Board of Water Commissioners has retained E. A. Gray, Boston, Mass., Consulting Engr., to revise plans and specifications for the proposed filtration plant for Cohoes. New bids will be asked in the spring.

BUFFALO, N. Y.—Water bonds to the amount of $500,000 were sold on Feb. 5 by the city. F. C. Ward is Comr. Pub. Wks.

FORT WOOD (New York post-office), N. Y.—Bids will be received by the Constructing Q. M., U. S. A., Fort Wood, until 11 a. m., Feb. 20, for furnishing and installing a 6-in. valve and water meter.

*NEW YORK, N. Y.—Bids are asked by the Board of Water Supply until 11 a. m., March 11, for the construction of a portion of the Catskill aqueduct, consisting of 5,450

ft. of plain concrete conduit, known as Yorktown cut-and-cover, 17 ft. high by 17 ft. 6 ins. wide, and two tunnels, 17 ft. high by 13 ft. 4 ins. wide on the hydraulic gradient, having a combined length of 6,450 ft., and known as Hunter's Brook and Scribner tunnels, situated east of the Hudson River in the town of Yorktown, Westchester County.

Bids are asked by the Board of Water Supply until 11 a. m., March 9, for the construction of a portion of the Catskill aqueduct, consisting of about one mile of tunnel on the hydraulic gradient, known as Bull Hill tunnel, 17 ft. high by 13 ft. 4 ins. wide inside, lined with concrete; and two short stretches of plain concrete conduit, known as cut-and-cover aqueduct, at the ends of the tunnel, about ½ mile long, 17 ft. high by 17½ ft. wide inside, situated in the town of Phillipstown, Putnam County. J. Waldo Smith is Ch. Engr. Bd.

*NEWARK, N. J.—Bids will be received until 3.15 p. m., Feb. 25, by the Board of Street and Water Commissioners, City Hall, for coated c.-i. water-pipe and special castings. M. R. Sherrerd, Ch. Engr.

NORTH ARLINGTON (Arlington post-office), N. J.—All bids opened on Feb. 3 by the Mayor and Borough Council for furnishing and laying approximately 17,340 lin. ft. 6-in., 6,960 lin. ft. 8-in. and 280 lin. ft. 4-in. c.-i. bell and spigot pipe, hydrants, valves, etc., have been rejected as excessive. New bids will be received until Mar. 3. Wise & Watson are Engrs., Rutherford. H. C. Bayliss is Boro. Clk. List of bidders noted on Feb. 11.

PITTSBURG, PA.—The Finance Committee of Council on Feb. 2 approved the ordinance providing for a bond issue of $1,975,000 to purchase the plant of the Monongahela Water Co. and $700,000 of bonds to purchase machinery for same. N. S. Sprague is City Engr.

*SALTSBURG, PA.—We are officially advised that M. BENNET & SONS, of Indiana, Pa., have secured the contract, bids opened on Feb. 6, for the construction of a water-plant for the borough of Avonmore. Estimated cost, $35,000.

The contract for the pumps and gas-engine was awarded to the N. C. DAVIDSON CO., Pittsburg, Pa., for c.-i. pipe to the CAST IRON PIPE & FOUNDRY CO., Pittsburg, and for fire hydrants to the DARLING PUMP CO., Williamsport, Pa.

*PHILADELPHIA, PA.—Bids are asked by the Department of Public Works until March 15 for the construction of the Queen Lane filtration plant. Estimated cost, about $2,500,000. The plan is to utilize the present pumping station as the power plant for the system to pump the water from the Schuylkill River to the filter beds. It is proposed to build the 52 preliminary filters on the bank and 26 final filters over the present basin, using the basin itself for filtered water storage entirely. The plant, when completed, will have a capacity of 80,000,000 gallons daily. George R. Stearns is Dir. Pub. Wks.

BALTIMORE, MD.—The Fire Commissioners on Feb. 10 approved the plans of D. B. Banks for the pipe-line system in the section bounded by Franklin St. on the north, North and South Sts. on the east, Pratt St. on the south and Eutaw St. on the west. B. T. Fendall is City Engr.

BERLIN, MD.—Bids will be received by the Mayor and Council until 11 a. m., March 16, for the construction and completion of a water-works system and an electric light system here. Dodge & Day are Engrs., Washington Bldg., Philadelphia, Pa.

BRYSON CITY, N. C.—The city contemplates constructing a water-works system here.

COLQUITT, GA.—Between $10,000 and $15,000 will be expended for improvements to the water-works and electric light plant here. J. B. McCrary & Son are Engrs., Atlanta.

PALMETTO, FLA.—The R. D. COLE MFG. CO., of Newman, Ga., has secured the contract for a 100-ft. tower and tank and the COATS PLUMBING & SUPPLY CO., of Tampa, for the engine pump and pipe. Bids were opened on Jan. 26. E. F. Wilson is Mayor.

SAMSON, ALA.—Howard Butt, Consulting Engr., 121 Sayre St., Montgomery, Ala., is preparing plans for water-works and light plant for Samson.

BREWTON, ALA.—The city contemplates installing an engine and dynamo at the water and light plant.

ITTA BENA, MISS.—Bids will be received until Feb. 19 by the Town Council for furnishing material and constructing a water-works and sewer system. Xavier A. Kramer, is Consulting Engr., Magnolia, Miss. Bids were asked until Feb. 15.

SOUTH BEND, IND.—Bids are asked by the South Bend City Water-Works until 10.30 a. m., Feb. 24, for the following disc. water-meters, delivered f. o. b. cars South Bend: 300 ⅝-in. with connections, with the privilege of recording in lots of 50 during the year 1909; also for c.-i. pipe, gate-valves, etc.

COLFAX, ILL.—Bids are asked until 7.30 p. m., Feb. 20, by J. C. Barnes, Village Clk., for constructing water-works here. J. G. Melluish is Engineer, Bloomington, Ill.

FOREST PARK (Oak Park post-office), ILL.—Bids are asked until 5 p. m., March 1, by A. C. Roos, Village Clk., for furnishing and installing at the water-works one compound-duplex pressure pump, capacity 2,000,000 gallons, and all necessary connections.

CHARLOTTE, IOWA.—Bonds to the amount of $5,000 have been sold for the construction of water-works.

JACKSON, MINN.—Bids will be received until Feb. 26 by J. G. Robertson, City Clk., for the construction of an extension to the water mains, 16,000-gallon tank and steel tower. Loweth & Wolf are Consulting Engrs., St. Paul, Minn. Estimated cost, $12,000.

LINCOLN, NEB.—Bids will be received by Thomas H. Pratt, City Clk., until Feb. 24 for the construction of a reservoir of 1,000,000 gallons capacity, to be located at Mockett pumping station. William Grant is City Engr.

FALLS CITY, NEB.—The Monarch Engineering Co., Crook Bldg., Falls City, advises us that the city of Falls City is in the market to buy a new 200-HP. water-tube boiler and a 300-HP. open feed water heater. As there is an emergency existing the city will buy on open account.

SCOTTSBLUFF, NEB.—Bids are asked until 1 p. m., Feb. 20, by L. L. Raymond, Village Clk., for the construction of a water-works system here.

MINOT, N. DAK.—Bids for construction of new water-works system here were opened as follows by the Mayor and Council on Feb. 4: G. W. Haggert, Fargo, pumping station complete, $50,680; 100,000-gallon high tank, $6,340; 200,000-gallon high tank, $8,900; 200,000-gallon low tank, $7,760; total, $14,368. C. H. Perrett, Fargo, pumping station complete, $48,100; 100,000-gallon high tank, $6,810; 200,000-gallon high tank, $8,845; 200,000-gallon low tank, $7,680; total, $115,225. James Kennedy, Fargo, pumping station complete, $44,400; 100,000-gallon high tank, $3,500; 200,000-gallon high tank, $6,200; 200,000-gallon low tank, $5,100; total, $107,502. P. Lawrence Co., Duluth, pumping station complete, $47,800; 100,000-gallon high tank, $6,280; 200,000-gallon high tank, $8,750; 200,000-gallon low tank, $7,700; total, $116,898. G. W. Kemper, Minot, pumping station complete, no bid; 100,000-gallon high tank, $47,000; 200,000-gallon high tank, $9,000; 200,000-gallon low tank, $6,900; total, $98,377. P. McDonald, Duluth, pumping station complete, $47,200; 100,000-gallon high tank, $6,100; 200,000-gallon high tank, $8,600; 200,000-gallon low tank, $7,400; total, $185,000. JAMES KENNEDY, Fargo, was awarded contract. E. S. Severance is City Engr.

BRYANT, S. DAK.—The City Council has awarded the contract to A. WHITE, Clear Lake, S. Dak., and M. GOSSEN, Rock Rapids, Iowa, at $4,000, for constructing a deep well, with a capacity of 75,000 gallons per day.

*KANSAS CITY, MO.—Bids are asked by the Board of Fire and Water Commissioners until March 11 for pumping engine at Turkey Creek pumping station. Details are given in the advertisement in this issue.

BOONVILLE, ARK.—The Boonville Water & Light Co., of Boonville, contemplates the installation of a complete water-works system in connection with their electric lighting plant within the next three months, at a cost of from $100,000 to $150,000. There will be a water-power electric plant installed in connection with the same. Bids will probably be received about April 1. W. A. Fuller, Chemical Bldg., St. Louis, Mo., is preparing the plans and specifications.

DALLAS, TEX.—The Municipal Board of Commissioners have adopted the report of the Water-Works Committee recommending the acquisition of a reservoir site and construction of dam and pumping station in White Rock valley, increasing water supply. The dam proposed is to be 2,100 ft. long, 39 ft. high, 211 ft. wide at base, 16 ft. wide at top, with slope of 3 to 1 on upstream face of work; 292,300 cu. yds. of earthwork, besides necessary masonry; elevation of 129 ft.; hold water to cover 1,288 acres at normal and 1,429 at flood; supply 5,508,287,000 gallons; average depth of water, 28½ ft.; drainage to be from 114 sq. miles of water-shed. Total cost, $730,840.

*SHATTUCK, OKLA.—Bids are asked by the City Secretary until March 8 for all material for construction of system of water-works, including equipment. The O'Neil Engineering Co., Dallas, Tex., are Engrs.

SEATTLE, WASH.—R. H. Thomson, City Engr., has reported the cost of the following improvements: West 58th St., and other streets, water mains, $3,650; West 56th St., and North 46th St., same, $4,200.

SEATTLE, WASH.—The contract for improving Boren Ave. North and other streets by constructing water mains has been awarded by the Board of Public Works to the SPARGER CONCRETE CO., Colman Bldg., at $10,749.54.

CONDON, ORE.—It is proposed to lay about one mile of water pipe here.

SACRAMENTO, CAL.—The contract for 8,400 ft. of 6-in. c.-i. pipe, bids opened on Jan. 25, has been awarded to the U. S. PIPE CO., of San Francisco, at $33.90 per ton. M. J. Desmond is City Clk.

SALT LAKE CITY, UTAH.—Bids will be received until Feb. 26 by the Board Public Works, H. G. McMillan, Chn., for constructing the North Temple St. aqueduct from Fourth West St. to the Jordan River. Louis C. Kelsey is City Engr.

SASKATOON, SASH.—Bids will be received until March 1 by J. H. Truesdale, City Clk., for certain material for water-works and sewerage works. Willis Chipman, C. E., is Ch. Engr., 103 Bay St., Toronto.

SEWERAGE.

(denotes that this work is advertised in Engineering News.)*

*NIAGARA FALLS, N. Y.—We are officially advised that the contract for constructing an extension to the tunnel trunk sewer has been awarded by the Board of Public Works to TEARNEY & HORN, of Niagara Falls, at $65,517. Bids were opened on Feb. 9. William D. Robbins is City Engr., Walter P. Horne is City Clk.

BROOKLYN, N. Y.—Bids were received as follows by Bird S. Coler, Boro. Pres., for constructing sewers in (a) 46th St., between Twelfth Ave. and 15th Ave, with outlet sewer in 46th St., between 15th and 17th Aves., etc.; (b) 54th St., between 13th and 15th Aves. with outlet sewer in 13th Ave., between 54th St. and New Utrecht Ave.; (c) Twelfth Ave., between 43d St. and 49th St., with outlet sewer in 45th St., between Twelfth and 13th Aves., etc.: Long Island Contracting & Supply Co., Long Island City, (a) 79 9-10%, (b) 77 9-10%, (c) 76 9-10%; Palading Contracting Co., 1326 60th St., Brooklyn, (a) 92%, (b) 79%, (c) 87%; Sigretto & Minnio, (a) 101%, (b) 108%, (c) 101%; Murphy Bros., (a) 116 99-100%, (b) 115%, (c) 112 99-100%; Gore Meenan Co., (a) 89%, (b) 92%, (c) 82%; Leo E. Kelley, (a) 107 13-15%, (b) 109 13-16%, (c) 108¾%; Chas. A. Meyers, (a) 107 97-100%, (b) 107 97-100%, (c) 107 97-100%; Rio King & Ganey, (a) 95%, (b) 95%, (c) 95%; Donegan Redmond Co., (a) 103%, (b) 100%, (c) 103%; J. L. Carey & Co., (a) 111 91-100%, (b) 113 43-100%, (c) 115 73-100%; Vachire & Gelardi, (a) 93 11-100%, (b) 92%, (c) 88 11-100%; Jos. Taormino, (c) 92%; M. Pauzio, (c) 109%. Estimated, (a) $25,999, (b) $11,755, (c) $10,402.

BATAVIA, N. Y.—Plans are being prepared by Rudolph Hering and A. L. Webster, 170 Broadway, New York, Consulting Engrs., for the construction of the proposed sewerage disposal plant and pumping station for the city of Batavia, bids for which will soon be asked. The equipment of the plant will include one 150-HP. engine, a boiler of 150-HP., two motor-driven pumps, one additional pump with lower rating, and manholes, castings, etc. Estimated cost, $150,000.

*ASBURY PARK, N. J.—Bids are asked until 8 p. m., March 1, by the City Council for construction and equipment of sewage disposal works. Plans may be seen at office of City Wastes Disposal Co., 156 Fifth Ave., New York, the Engrs.

*AVALON, N. J.—Bids are asked by the Borough Council until 8 p. m., March 5, for furnishing and constructing about 7,400 lin. ft. of terra cotta sewer in various sizes (not exceeding 12-in. diameter), ten manholes and six flush boxes. R. L. Goff is Boro. Engr., Ocean City, N. J.

INDIANA, PA.—The Town Council is considering the construction of a sewage disposal plant here. Estimated cost, $50,000.

PITTSBURG, PA.—The Finance Committee of the Council on Feb. 2 passed the resolution allowing the Director of Public Works to employ expert engineers to assist in preparing plans for the sewage disposal system here.

BALTIMORE, MD.—Edward A. Preston, Bldg. Inspector, City Hall, and Calvin W. Hendrick, Ch. Engr., Sewer Comn., American Bldg., have agreed upon foundations for sewerage pumping station on East Falls Ave., having decided to sink test piles and put in solid foundations wherever possible; concrete piles to be driven as far as possible in places where solid foundation cannot otherwise be had.

LYNCHBURG, VA.—The City Council is considering the issuance of $100,000 of bonds of which about $10,000 is to be used for extension of sewers. H. L. Shaner is City Engr.

CHARLESTON, S. C.—The cost of completing the sewerage system has been estimated at about $300,000. J. H. Dingle is City Engr.

DARLINGTON, S. C.—The city is considering the issuance of $20,000 of bonds for the construction of a drainage system and improvement of streets. C. B. Edwards is Mayor.

VALDOSTA, GA.—The city is considering the issuance of $50,000 bonds for extension of sewer and water mains, etc.

BARTOW, FLA.—The City Council has accepted the plans of W. W. Lyon, Jacksonville, Fla., for the construction of a sewer system here.

BIRMINGHAM, ALA.—Bids will be received until Feb. 20 by the County Sanitary Commission for constructing about 6,380 ft. of sanitary sewer.

ITTA BENA, MISS.—Bids are asked until Feb. 19 by the city for constructing a sewer system. Xavier A. Kramer is Consulting Engr., Magnolia, Miss.

NATCHITOCHES, LA.—Bids are asked until noon, Feb. 22, by P. E. Prudhomme, Pres. Police Jury for material and labor for constructing a sewer from jail and courthouse.

NEW ORLEANS, LA.—The New Orleans Charity Hospital is considering the installation of a sewerage system. Estimated cost, about $18,000. Dr. E. S. Lewis is Vice-Pres., Bd. of Administrators.

CHATTANOOGA, TENN.—The Board of Public Works, H. F. Van Dusen, Chn., will soon ask for bids for laying a sewer in Greenwood Ave., between Kirby and Union Sts.

KNOXVILLE, TENN.—JAS. A. HANNIFIN was awarded the contract to construct the 1,000 ft. of lateral sanitary sewer on Wells Ave. by the Board of Public Works, on Feb. 6.

WAPAKONETA, OHIO.—The State Board of Health has approved plans for the sewage purification works for the Auglaize County Infirmary.

YOUNGSTOWN, OHIO.—Bids are asked until noon, Feb. 25, by the Board of Public Service for the construction of a sewer in Una St. William H. McMillin is Clk. Bd.

SYLVANIA, OHIO.—The contract for the construction of sewers and appurtenances has been awarded by the village to LEWANDOWSKI & GRZYBOWSKI, of Toledo. The contract also includes sewage disposal. The Riggs & Sherman Co., Toledo, are Engrs. List of bidders noted on Jan. 28.

INDIANAPOLIS, IND.—Charles. A. Brown, Asst. City Engr., is completing plans for sewers in Miller St., with various branches, to cost $35,000, and for sewers in Morris St. and branches to cost $12,000.

CARO, MICH.—Surveys are being made for the construction of a sewerage system. Estimated cost, $30,000.

CHICAGO, ILL.—The Sanitary District of Chicago, passed an order on Feb. 10, instructing the Engineering Department to prepare an estimate of the cost of constructing an intercepting sewer in the drainage area of the Calumet district. This will necessitate the reversal of the current of the Calumet River from the lake. Sag.

This action was taken when it was expected that the district will win the test suit brought in the United States district court to enjoin the district from reversing the current of the Calumet River.

The cost of the proposition is estimated, will be about $20,000,000 and will require six or seven years' work.

WAYNE, NEB.—Bids are asked by Martin Ringer, City Clk., until noon, March 22, for the construction of a sanitary sewer system here.

ST. LOUIS, MO.—Bids are asked by the Board of Public Improvements until noon, March 2, for the construction of several sewer districts. Bid. $210,000. W. B. Dryden is Comanche.

BRADY, TEX.—A. LEWIS, Comanche, Tex., has been awarded the contract to construct about 1,600 ft. of sewer to be concrete reinforced, at $3.00; 3 × 4 ft. half distance, then with steel, ft.

SAN ANGELO, TEX.—The San Angelo Sewer Co. will expend about $ to improve the sewer system here.

DENTON, TEX.—Plans for sewer here are on file at the Engineering News, New York. Bids until Feb. 20. N. Werenskiold is Engr.

OKLAHOMA CITY, OKLA.—The city contemplates the expenditure of $ for the extension of the sewer system. M. Scales is Mayor.

SEATTLE, WASH.—The contract for the construction of sewers in Bay Ave. and other streets has been awarded to PETERSON, Seattle, at $ R. H. Thomson is City Engr.

STREETS AND ROADS.

(denotes that this work is advertised in Engineering News.)*

MALDEN, MASS.—The Common Council on Feb. 9 voted to appropriate $ for widening Main St., from the Odd Fellows Bldg. to the block of the Caroline Richardson estate, Pleasant St.

SYRACUSE, N. Y.—Henry C. Allen, City Engr., has submitted to the Common Council estimates as follows for street paving: Cortland Ave., with sandstone or creosoted wood block, $47,160; with asphalt brick bitulithic or bituminous, $34,200; with sandstone block or creosoted wood block with brick in railroad strip, $41,030; Orange St., between E. Fayette and E. Water Sts., with asphalt, brick, bitulithic or bituminous macadam, $7,800; macadam pavement, $6,200 and sandstone or creosoted wood block, $10,000; Orange St., between E. Adams and Croton St.; sandstone, block or creosoted wood block, $48,000; asphalt brick, bitulithic or bituminous macadam, $34,600, and macadam, $26,400. Bids will probably soon be received by the Board of Contract and Supply.

ALBANY, N. Y.—The Mayor, it is reported, has approved the ordinance authorizing the issue of $35,000 of bonds for constructing a paved road between Eagle and Park Aves. and Swan St. and Park Ave.

*BUFFALO, N. Y.—Bids are asked by the Park Commissioners until 12.30 p. m., March 8, for repaving Richmond Ave. 50 ft. wide, from the northerly curb line of Porter Ave. to a point 343 ft. northerly from the northerly curb line of Auburn Ave., including the Ferry St. Circle, and excepting the space occupied and controlled by the International Ry. Co., at Utica St., with macadam pavement, or with dressed block stone, brick or asphalt pavement, on a concrete base, including all necessary connections. George H. Seikirk is Secy.

BROOKLYN, N. Y.—Bids are asked by Bird S. Coler, Boro. Pres., until 11 a. m., March 3, for regulating, grading, curbing and laying sidewalks on various streets; regulating and repaving with asphalt pavement on a concrete foundation the roadways of several streets; and for constructing cement sidewalks, five feet wide, on several streets, and for grading lots.

*ASBURY PARK, N. J.— Bids are asked until noon, Feb. 22, by the Common Council for furnishing and laying about 13,500 sq. yds. of brick, vitrified brick, bitulithic, laid under the patents of Warren Bros. Co., Hassam pavement or Imperial pavement, on Springwood Ave., from the westerly line of Main St., to the westerly limit of said avenue. William C. Burroughs is City Clk.

ATLANTIC CITY, N. J.—The contract for paving New Hampshire Ave. and other streets was awarded by the Council on Feb. 8 to the H. G. MULOCK CO., at $50,220. Other bidders were: J. S. Chanley & Co., Philadelphia, $54,302; United Paving Co., $52,378; Edward L. Bader, $56,70 ; B. F. Sweeton Co., $52,525; Cunningham Co., $54,061; F. S. Lockwood, $51,967.

GLOUCESTER CITY, N. J.—Street improvement bonds to the amount of $100,000 have been sold.

BAYONNE, N. J.—The paving of Broadway is contemplated by the city. Estimated cost, $265,000.

WILKES BARRE, PA.—Bids will be received until Feb. 18 by James Norris, County Controller, for furnishing two road rollers, each of eight tons capacity, and two road sprinkling carts, one of each to be delivered and put in successful operation on the public road near the Luzerne station, and one near Hunlock's station, Delaware, Lackawanna & Western R. R., on or before April 15, 1909; also a stone crusher having a capacity of 12 to 18 tons per hr, a 7 HP. engine, bins of 10-ton capacity, chute, screens and elevator, delivered at Dallas, on or before May 1, 1909.

WILLIAMSPORT, PA.—The city contemplates the resurfacing of about 20,000 sq. yds. with asphalt. James F. Fisher is City Engr.

BROCKWAY...ILLE, PA.—We are officially advised that the Borough Council has retained E. ... Hess, Engr., of Clearfield and DuBois, Pa., to make surveys and prepare plans, specifications, estimates, etc., for paving on Main St., and to arrange for a ... wer system for the town.

*PHILADELPHIA, PA.—Bids were opened Feb. 15 by William R. Knight, Asst. Dir. ... Wks., for repaving Market St., between ... Delaware Ave. and Broad St. Granite blocks ... wood blocks and asphalt were included in ... specifications. All bids were based upon ... amples of the different kinds of paving ... ted by each bidder, and some of them ... prices upon four and eight samples. ... were asked for granite blocks from Delaware ... Ave. to the Schuylkill River; granite blocks, ... from Delaware Ave. to Second St., and ... asphalt, from Second St. to the Schuylkill ... river; also for wood blocks from Second St. ... the Schuylkill River. Following are the ... bids: Granite block throughout: Barber Asphalt Co., Land Title Bldg., $3,20, $3.26, $3.... $3.59; Mack Paving Co., Land Title Bldg., $3.29, $3.35, $3.45, $3.58; William A. Ryan, 1219 Dickinson St., $3.60, $3.73, $3.90, $3.91; Cunningham Paving Co., $3.00, $3.... $3.36, $3.91; Owen J. Evers, $3.52; Michael O'Rourke, $3.42, $3.64, $3.81, $3.96; Millard Construction Co., Pennsylvania Bldg., $3.19. Asphalt.—Granite block to Second St.: Barber Asphalt Co., asphalt, $2.04, block, $3.22, asphalt, $3.24, block, $3.28, asphalt, $2.04, block, $3.45, asphalt, $2.04, block, $3.61; Filbert Paving Co., asphalt, $1.94, block, $3.50. Wood—Granite block to Second St., Barber Asphalt Co., wood, $3.16, block, $3.22, wood, $3.16, block, $3.28, wood, $3.16, block, $3.45, wood, $3.16, block, $3.61, wood, $3.32, block, $3.22, wood, $3.32, block, $3.28 wood, $3.32, block, $3.45, wood, $3.32, block, $3.61; Cunningham Paving Co., wood, $3.72, block, $3.00, wood, $3.72, wood, $3.72, wood, $3.72, block, $3.36, wood, $3.72, block, $3.41; E. H. Vare, wood, $3.49, block, $3.19; Millard Construction Co., wood, $3.64, block, $3.19.

Bids were also received for furnishing and laying wood and granite blocks, where foundations have already been laid, as follows: Barber Asphalt Co., granite, $2.73, wood, $2.81, granite $3.06, wood, $2.81, granite, $2.90, wood, $2.81, granite, $2.67, wood, $2.81, granite, $2.73, wood, $2.65, granite, $3.06, wood, $2.65, granite, $2.90, wood, $2.65, granite, $2.67, wood, $2.65; Mack Paving Co., granite, $2.79, $3.08, $2.91, $2.80; Cunningham Paving Co., granite, $2.56, wood, $2.87, granite, $2.45, wood, $2.87, granite, $2.51, wood, $2.87, granite, $2.25, wood, $2.87; Owen J. Evers, granite, $2.75; William A. Ryan, granite, $3.10, $3.23, $3.30, $3.41; E. H. Vare, granite, $2.49, wood, $3; Filbert Paving Co., granite, $2.80; Millard Paving Co., granite, $2.90, wood, $3.50; O'Rourke Paving Co., granite, $2.82, $3.36, $3.24, $3.04.

BALTIMORE, MD.—New specifications have been approved for sheet asphalt repairs during the present year. B. T. Fendall is City Engr.

The Commissioners for Opening Streets, James H. Smith, Pres., have selected 19 streets in the Annex to be paved in the spring from the $500,000 balance of $2,000,000 Annex loan. The streets to be paved include Augusta, Loudon, Walrad, Belleview, Penhurst and Ridgewood Aves., and other streets.

WASHINGTON, D. C.—The city contemplates issuing bonds for the construction of sidewalks, street-paving, etc.

CULPEPER, VA. — The Commissioners of Culpeper County have decided to construct ten miles of macadam roads.

DANVILLE, VA.—The Street and Bridge Committee have adopted the report recommending expenditure of $100,000 for paving West Main St. and the construction of an iron bridge across Dan River.

PETERSBURG, VA.—The Common Council is considering the issuance of $70,000 of bonds for street improvements.

GRAHAM, N. C.—Alamance County has awarded the contract to T. D. SCRUGGS, Durham, N. C., for grading roads in Alamance County. Bonds for $200,000 for construction of macadam roads have been voted. Gilbert C. White, Durham, N. C., is Engr.

VALDOSTA, GA.—The city is considering issuing $50,000 of bonds for paving sidewalks, extending sewer and water mains, etc.

COLUMBUS, GA.—The City Council has authorized macadamizing Third Ave. between Tenth and 17th Sts., and has adopted an ordinance for grading and curbing Cemetery St. and Tenth Ave.

SANFORD, FLA.—The city will pave First St. with brick.

ORLANDO, FLA.—The city has decided to pave West Pine St. and Central Ave. with vitrified brick.

LOUISVILLE, KY.—Bids are asked by the Board of Public Works until March 2 for construction of 33 blocks of asphalt streets. Work will include 23,200 yds. excavation, 14,060 ft. curb, 55,800 sq. yds. asphalt pavement. Estimated cost, $158,100.

Bids are asked by the Board of Public Works until Feb. 19 for paving 59 sidewalks, embracing 20,000 yds. concrete and brick pavement, and 16,000 ft. curb. Estimated cost $37,000. John Chambers is Ch. Engr. Bd.

COLUMBUS, OHIO.—The Board Public Works is contemplating paving portions of Indiana, Jefferson, Seibert, Stauring and other streets. Estimated cost, $70,000.

COLUMBUS, OHIO.—Bids are asked by the County Commissioners until noon, March 9 for macadamizing the Gahenna cemetery improvement in Mifflin Township. F. M. Speece is County Audr.

CLEVELAND, OHIO.—Bids are asked by the County Commissioners until 11 a. m., March 20, for grading, draining and improving Northfield Road from Ward's crossing to Cuyahoga County line in Bedford Township. William F. Black is Ch. Comrs.

The County Commissioners on Feb. 6 let two contracts for road improvement. BALDWIN BROS. & GRAHAM received the contract for paving State Road No. 5, for three miles from the city limits to Aiken Road, Royalton township, at $69,495, and the NORTHERN OHIO PAVING & CONSTRUCTION CO., the contract for paving Harvard Road from the city limits to the Denison-Harvard bridge, at $26,999. Both will be brick, with concrete curb.

The other highways were ordered advertised for early improvement, Wooster, Settlemen and Northfield Roads. Estimated cost, about $19,000.

CLEVELAND, OHIO.—E. A. FRESHWATER & SONS, of East Liverpool, Ohio, have been awarded the contract by the County Commissioners for paving six miles of the Columbia Road here. The road will be paved with brick and the contract calls for its completion within 250 days. Work is to be started on March 1. List of bidders noted on Feb. 11.

CLEVELAND, OHIO.—Bids will be received by the Board of Commissioners of Cuyahoga County, until 11 a. m., March 6, for grading, draining and improvement of Wooster road from Center Ridge road to Coe Ridge road in Rocky River village. A. B. Lea is County Surv.

MARION, IND.—The County Commissioners of Marion, have awarded contracts for paving as follows: Sycamore St., Culver brick, to WM. YATES, at about $16,000; Mill St., with Marion block, to F. M. BENNER, of Marion, at $8,000.

NEW ALBANY, IND.—The JEFFERSON COUNTY CONSTRUCTION CO., of this city, was awarded contracts by the Board of Public Works on Feb. 6, for the improvement of East Fifth St., from Elm St. to Cuthbertson Ave. and of Locust St., from Beeler St. to Charles St. The bids for Locust St. were as follows: Jefferson County Construction Co., Townsend block, $4.29; Peebles block No. 1, $4.14; Peebles Red Paver block, $4.04; Hoosier block, $4.02; Roetzel & Chipman, of Evansville, Peebles block No. 1, $4.30; Red Paver block, $4.12; G. W. Palmer, of Logansport, Carlile block, $4.38; Ewing Shields, of Seymour, Carlile block, $4.32½. The bids on East Fifth St. were as follows: Jefferson County Construction Co., Townsend block, $4.34; Peebles block, No. 1, $4.18½; Peebles Red Paver block, $4.08; Hoosier block, $4.06. Roetzel & Chipman, Peebles block, No. 1, $4.50; Red Paver block, $4.32. G. W. Palmer, Carlile block, $4.39. Ewing Shields, Carlile block, $4.33. Both improvements call for 26-ft. roadway, with grass plat, curbing and granitoid sidewalks. The successful bidders also agree to construct the additional sidewalk connections at 14.8 cts. per ft., the bids of the other contractors for this work being 15 cts. per ft.

NEWCASTLE, IND.—Bids are asked by the commissioners of Henry County until 10 a. m., March 5, for the construction of a gravel road in Fall Creek Township. William L. Risk, is County Audr.

MUNCIE, IND.—Bids are asked by Joseph E. Davis, County Audr., Delaware County, until 10 a. m., March 3, for the construction of a gravel road in Delaware Township.

MONTICELLO, IND.—Bids are asked by J. L. Ackerman, Audr. White County, until noon, March 2, for the construction of the Redding gravel road and the Nagle gravel road and the Sluth gravel road, all in Prairie Township.

WILLIAMSPORT, IND.—Bids are asked by R. L. Winks, Audr. Warren County, until 1 p. m., March 6, for the construction of a gravel road in Adams Township and for a gravel road in Warren Township.

LAFAYETTE, IND.—Bids are asked by John P. Foresman, Audr. Tippecanoe County until 10 a. m., March 1, for the construction of the Wilson gravel road in Lauramee Township.

SPENCER, IND.—Bids are asked by George W. Edwards, Audr. Owen County, until noon, March 2, for the construction of 10,547.5 ft. of pike road in Wayne Township and 12,390 ft. of pike road in Marion Township.

VERNON, IND.—Bids are asked by T. L. Thomas, Audr., Jennings County, until March 1, for the construction of one-half mile of pike road in Spencer Township.

CROWN POINT, IND.—Bids are asked by Charles A. Johnson, Audr., Lake County, until noon, March 1, for the construction of a gravel road in Calumet Township.

LOGANSPORT, IND.—Bids are asked by George W. Gann, Audr., Cass County, until noon, March 2, for the construction of a gravel road in Jackson Township.

GREENFIELD, IND.—Bids are asked by Charles H. Troy, County Audr., until 10 a. m., March 1, for the construction of two macadamized roads in Buck Creek Township.

WASHINGTON, IND.—Bids are asked by Thomas Nugent, Audr., Daviess County, until 2 p. m., March 2, for the construction of the following gravel roads: The McCullough road, the Wagoner road, the Cattee road and the Cault road, all in Washington Township.

LIBERTY, IND.—Bids are asked by Clinton Gardner, Audr., Union County, until 2 p. m., March 2, for the construction of three miles of gravel road in Union Township.

INDIANAPOLIS, IND.—The Board of Public Works has passed resolutions for the paving of twelve streets. Estimated cost, $60,372. Bids will be invited as soon as plans can be prepared. B. H. Miller is City Engr.

LANSING, MICH. — H. A. Collar, City Engr. has estimated the cost of paving a portion of Cedar St. with brick at $24,154.

COLDWATER, MICH.—The sum of $20,000 will be expended by the city for extending Chicago St. Ezra C. Shoecraft is City Engr.

FREEPORT, ILL.—Ordinances were passed on Feb. 1 providing for 27,000 sq. yds. of brick paving, with cement curb and gutter. G. W. Graham is City Engr.

PRINCETON, ILL.—The Board of Local Improvements, has awarded the contract for grading, draining and paving throughout Princeton to KEYES & McNAMARA, of La Salle, at $35,196.

APPLETON, WIS.—KUMPFEL & BARTZ, of Appleton, have secured the contract for paving Washington St. with creosoted wood block on a concrete foundation, about 11,000 sq. yds., at $2.46 per sq. yd. Bids were opened on Feb. 1. E. L. Williams is City Clk.

SHENANDOAH, IOWA. — The KETTLE RIVER QUARRIES CO., of Minneapolis, Minn., was awarded contracts for paving by the City Council on Feb. 4. There were two bidders, the above mentioned firm at $2.65 per sq. yd., and the James Horrabin Co., of Iowa City, at $2.84. There are two streets to be paved—Maple and Elm Sts.—about a mile in all, and the paving is to be of creosote blocks. The work is to be completed by Aug. 1.

MOOREHEAD, MINN.—JAMES KENNEDY of Fargo, N. Dak., has been awarded the contract by the city for about 23,000 sq. yds. of pavement, bids opened Feb. 1, at $2.52 per sq. yd. for brick, or $2.59 for creosoted wood block pavement. The material has not yet been selected. A. M. Hofeman is City Engr.

GALVESTON, TEX.—The following bids were opened on Jan. 29 by the City Commissioners, for (a) paving Tremont St. and (b) resurfacing 25th, 33d, 37th Sts. and Avenue K: S. C. Leonard (a) $6,321; Heffron & Falligan, (a) $6,521; Kelso & Vantrin, (a) $6,642; Horton & Horton, (a) $6,834; W. D. Haden, (b) $15,902, and Charles Clarke & Co., (b) $16,662.

OLYMPIA, WASH.—The following bids have been received by the City Council for paving a portion of Main St.: Lister Construction Co., 613 St. Helens Ave., Tacoma, brick, $2.90 per sq. yd.; creosoted blocks, $2.75; W. A. Weller, brick and creosoted block, $2.84; F. A. Keasel, Provident Bldg., Tacoma, brick $2.94; W. J. Murphy, brick, $3.30, creosoted block, $2.95; George Milton Savage, Bank of Commerce Bldg., Tacoma, brick, $2.90.

SEATTLE, WASH.—R. H. Thomas, City Engr., has reported the estimated cost of the following local improvements. Grading: Eighth Ave. N. W. and other streets, $35,000; Eighth Ave. West and other streets, $20,000; West 56th St. and other streets, $50,000; Ray St. and other streets, $25,000; Palatine Ave. and other streets, $36,000; North and West 65th St. and other streets, $27,600; Second Ave. Northwest and other streets, $42,000; Seventh Ave. Northwest and other streets, $32,000; East 78th St. and other streets, $23,200; Boylston Ave. North, asphalt paving, $116,000; Vine St. and other streets, same, $67,500; East Madison St. and other streets, same, $122,000.

SEATTLE, WASH.—The Board of Public Works has awarded the following contracts for street improvements: Bagley Ave. and other streets, concrete sidewalks, to JOE FRANK, 602 Bellevue St., North, at $17,045; Olga St. and other streets, grading, to AGASSIZ & HADLEY, at $19,438; 17th Ave., South, and other streets, planking, to A. K. DYE, at $8,657.

WINNIPEG, MAN.—Bids are asked by the Chairman of the Board of Control until 11 a. m., March 1, for a 10-ton macadam roller for the Street Commissioner's department. M. Peterson is Secy. Bd.

MANUFACTURING PLANTS.

(denotes that this work is advertised in Engineering News.)*

OLDTOWN, ME.—Press reports state that C. C. Garland, of Oldtown, and his associates propose to erect a mill for the manufacture of fine and medium fine cotton goods, the plant, with complete equipment, to cost between $800,000 and $900,000, to have 50,000 spindles and 1,200 looms, and to employ 500 to 600 hands. The buildings are to be of brick, stone and concrete, and the site, for which negotiations are in progress is to be convenient both to the Penobscot River and to the tracks of the Maine Central R. R. About 1,500 to 2,000 HP. will be needed for the operation of the plant, and there are three sources from which this power may be obtained, in the form of electrical energy, generated by waterfalls. It is proposed to form a corporation with $1,000,000 capital, divided into shares of $100 each, all common. It is not intended that there shall be any bond issue. In Oldtown $100,000 of the stock has been placed, and it is expected that at least $100,000 more will be taken in this city. The City Council of Oldtown has voted to fix the valuation of the mill for the purposes of taxation at not exceeding $100,000 for the first 25 years and for the next succeeding ten years at not exceeding $200,000.

BRIDGEWATER, MASS.—The L. Q. White Shoe Co. has secured a site for a factory to be erected in Bridgewater. The land is near the Bridgewater railway station and has a frontage of more than 200 ft. on the railway tracks. The factory will cost about $45,000. It will be 300 ft. in length, 40 ft. in width and four stories high. In addition there will be a basement. The office will be 30 × 60 ft. There will be a power plant, 35 × 50 ft., of brick. Floor space in the main factory will amount to 48,000 ft. and the factory will give 12,000 ft. additional. As soon as the condition of the ground permits work on the foundations will be begun. The building will be known as Factory No. 2. It will be completed by July 1.

LOWELL, MASS.—The management of the Moore Spinning Co., North Chemisford, is to enlarge its plant, and during the next few months will expend $50,000 in improvements. The company is at present erecting a scouring mill on the site of its old dye house, the new mill being a 1-story frame building, 200 × 40 ft., lighted with about 50 windows. This structure will be used exclusively for scouring and will be equipped with two large machines. The lower part of the company's storehouse is now being used for the sorting and combing departments. Two 1,500-HP. turbine engines will be installed and the old water wheel and pen stock removed. This installation will necessitate the erection of a 2-story reinforced-concrete power plant, 32 × 44 ft., in connection with which will be installed a 10-ton traveling crane, for the transportation of coal. The mill will be operated by electricity, when the new engines are installed.

BETHEL, CONN.—The Bates-Hyatt & Miller Hat Co., of Bethel, which has filed a certificate of incorporation, will engage in the manufacture of hats. The capital stock is $10,000, and the incorporators are H. W. Bates and William T. Miller, of Bethel, and Joseph P. Hyatt, of Danbury.

ROCHESTER, N. Y.—Plans and specifications for the new factory building of L. Adler Bros. Co., or Rochester, are being prepared by Charles A. Alexander, Builders' Exchange, Rochester, Consulting Engr. The equipment of the plant will include four boiler units with a total rating of 800 HP., two 150-HP. automatic engines and two 100-KW. generators direct connected, boiler feed and circulating pumps, motors, blowers and other accessories. The company has awarded a contract to the FERRO-CONCRETE CONSTRUCTION CO. for the construction of its factory building.

ROCHESTER, N. Y.—The Rochester Can Co., Rochester, whose plant is at 109 Hague St., intends to build a new plant for the manufacture of ash and garbage cans, patented sprinkling cans and street scrapers. M. E. Gray is Pres. and Gen. Mgr. and James A. Byers is Secy. and Treas.

BUFFALO, N. Y.—Plans are being prepared for the Crosby Co. by Robt. J. Reidpath, Arch., 30 Builders' Exchange, for a warehouse and office building of brick, four stories, 40 × 140 ft., which the company will erect adjoining the large additions now being made to their plant at Pratt and William Sts.

The Sinclair-Rooney Co., wholesale milliners, will erect a 7-story factory and business building, steel frame and brick construction, 60 × 164 ft., at the corner of Washington and Mohawk Sts. Cost, about $125,000. Construction will not be commenced until leases of building now on property expire, probably next summer.

NEWARK, N. J.—JOHN G. BROWN, contractor, Witherspoon Bldg., Philadelphia, has been awarded the contract to build a large factory building for the Central Stamping Co., 591 Ferry St., Newark.

PHILADELPHIA, PA.—The Standard Meter Co., took title on Feb. 10 from William H. Berger to the factory building at No. 3114 to 3120 North 17th St., for $27,000. The building will be improved by the erection of a 3-story addition and a boiler and engine house to cost $12,000, the contract for which has been awarded to A. RAYMOND RAFF, 1635 Thompson St., Philadelphia.

UNIONTOWN, PA.—A. S. Craig & Sons, operating as the Crystal Ice & Storage Co., have awarded the contract for the ice-making and refrigerating machinery for the new plant here to the YORK MFG. CO., of York, Pa. The plant will have a daily capacity of 20 tons. It will be 40 × 164 ft., one story in height, brick and steel, and will have electrically driven machinery, power for which will be furnished by the WEST PENN ELECTRIC CO., of Connellsville, Pa. A. M. Craig is Mgr.

RIDGWAY, PA.—The Ridgway Dynamo & Engine Co. will receive bids on a 4-story, 60-ft. × 90 ft. reinforced concrete pattern storage. Preliminary plans of the proposed building will be furnished reliable bidders. A. L. Bell is Pres.

ELLWOOD CITY, PA.—The National Tube Co., Frick Bldg., Pittsburg, has decided to expend $750,000 this year in new construction and improvements at the plant here. It has not been announced just what the improvements will consist of, but it is said that either a new blast furnace or a new open-hearth furnace will be constructed. The company has also decided to make improvements at the Standard and the Shelby plants, both of which are located in this city.

RENOVO, PA.—The Engineering Department of the Pennsylvania R. R. Co., Philadelphia, has completed plans for the proposed new boiler shops that will be built here this summer. Cost, $130,000. The shops will be of brick, steel and concrete, fireproof, and will be equipped with the latest and most improved electrically driven mechanical equipment, including electric traveling cranes of various sizes and capacities.

POTTSTOWN, PA.—We are officially advised that J. V. Foley, C. E., 162 Second St., Royersford, Pa., is preparing plans for a 1-story brass foundry, 40 × 75 ft., for Mitchell & Van Meter. Bids will be received by the owners. Brass furnaces, elevators, ventilating opening and closing device, smoke stack and foundry equipment will be needed.

CONCORD, N. C.—The Locke Cotton Mills Co., Concord, is planning, it is reported, the reconstruction of Odell Mill, No. 4, which was destroyed by fire. This company recently took over the Odell Cotton Mills property. Provision for 50,000 spindles will probably be made when rebuilding the No. 4 plant.

SALISBURY, N. C.—The Kesler Mfg. Co., Salisbury, will build another mill. Plans for the new structure have been secured and preliminary arrangements to proceed with the construction have been made. The building will be two stories, 80 × 120 ft., and in it will be placed from 3,000 to 6,000 new spindles, and about 12,000 spindles from the present mill. It is understood that the management will place looms in the space left vacant in the old mill. The company has been operating 25,000 ring spindles and 304 broad looms on the production of sheeting. Cost, about $100,000.

ROCKFORD, TENN.—Ernest Koella, Mgr. Rockford Cotton Mills, Rockford, is preparing to rebuild the plant, which was destroyed by fire at a loss of $25,000. The mill was operated by a water-power plant and furnished electricity for lighting Rockford.

All the equipment will be replaced. About 4,000 spindles will be the new cotton manufacturing machinery.

YOUNGSTOWN, OHIO.—The Corrugated Bar Mfg. Co., of St. Louis, Mo., has leased ground here, and will move the plant to this city. The company manufactures steel reinforcing bars for concrete construction.

PLAINVILLE, IND.—The Plainville Canning Co., recently organized, will construct a factory 70 × 170 ft. Thomas Nugent is Pres.

SOUTH BEND, IND.—John B. Haberle has ordered plans for the construction of a large addition to his factory on Hydraulic St. The building will be two stories high and of brick, stone and tile construction.

CHICAGO, ILL.—The H. C. Frick Coke Co., the coking company of the United States Steel Corporation, has decided to abandon work on additional coke ovens in Pennsylvania which were to have been built at a cost of $3,000,000, and in their stead construct a coking by-product at Gary. The plant will be capable of supplying enough gas for Chicago and many other towns in Northern Illinois and Indiana. It will take the place of 700 ovens which were to have been built at Filbert, 500 at Ralph and 500 at Sarah, Pa. In the meantime the company is opening new mines to supply the ovens with coal.

CHICAGO, ILL.—Patterson & Davidson, Engrs. (F. E. Davidson, Architect), report that they are preparing plans and specifications for a mill-building type addition to the factory of the Frank W. Williams Co., 1204 to 1220 West Taylor St., Chicago. It will be 50 × 120 ft., three stories in height. Both the addition and the present factory (which is 100 × 125 ft.) are to be equipped with automatic sprinklers. The building is to be equipped with steam heat, sheet metal windows and skylights, fire escapes, steel rolling shutters, steel and tin-clad fire doors, concrete and asphalt floor in basement, composition roofing, etc.

ST. PAUL, MINN.—The Pabst Brewing Co. proposes to build a pressed brick and cut-stone stock house here at the foot of John St. It will be two stories high, of reinforced-concrete and steel construction. John Arend, St. Paul, is Agt. for the company. Cost, $40,000.

FORT WORTH, TEX.—The Factory Club, of Fort Worth, Tex., expects to complete arrangements soon for accepting the proposition of North Carolina cotton manufacturers for the erection of a cotton factory at Fort Worth. A company, capitalized at $350,000, is proposed, Fred H. White, of Charlotte, N. C., representing the manufacturers interested. The plant would require a main building two stories high, 77 × 375 ft., an 80 × 160-ft. power house, a 100 × 180-ft. warehouse, and other structures. An equipment of 10,000 spindles is contemplated.

MISCELLANEOUS CONTRACTS.

U. S. RECLAMATION SERVICE.—Items regarding irrigation, canal projects, etc., will be found under Water Supply—Irrigation.

DREDGING.—Sacramento, Cal.—Bids will be received Feb. 23 by M. J. Desmond, City Clk., for dredging and leveling in South Side Park.

REPAIRING STEAMER.—Fort Monroe, Va.—Bids are asked by Capt. Curtis G. Rorebeck, Q. M., until 10 a. m., Feb. 20, for repairs to U. S. Steamer "Wetherill."

DITCH.—Hamilton, Ohio.—Bids will be received until Feb. 20 by the Board County Commissioners for constructing Section C of Ditch Improvement No. 11. J. E. Brate, County Audr.

DITCH.—Flandreau, S. Dak.—Bids will be received by the Board County Commissioners, at office of Asa Loucks, County Audr., until Feb. 27 for constructing the Peerless drainage ditch.

OIL TANKS.—Princeton, Ind.—The Pure Oil Co., Manhattan Bldg., Philadelphia, will build two steel oil tanks near this city. Estimated cost, $10,000 each. Capacity, 55,000 gals. each. J. W. Lee is Vice-Pres.

*LOCK GATES.—Brownsville, Pa.—Bids are asked until noon, March 17, by Maj. H. C. Newcomer, Corps Engrs., U. S. A., for building lock gates and lock-operating machinery for Lock 5, at Brownsville, Pa., on the Monongahela River.

DITCH.—Sioux City, Iowa.—Bids received by E. E. Hosmer, County Audr., on Feb. 1 for construction of the Hackley Lateral Ditch, Woodbury County, have been rejected. New bids will be called for. Approximate quantity, 39,000 cu. yds.

CULVERT.—Marshalltown, Iowa.—Bids received by the County Auditor on Feb. 1 for constructing concrete culvert on 13th St., have been rejected. Estimated cost, $2,500. Plans on file with County Auditor, also with C. A. Baughman, City Engr.

BULKHEAD, SIDEWALK.—Long Beach, Cal.—Bids were received on Jan. 29 for constructing concrete bulkhead and sidewalk. Lowest bidders were A. W. Calkins & Co., of Los Angeles, Cal., at $93,000. E. P. Hewey, Engr., Long Beach. C. O. Boynton, City Clerk; Lew. A. Paine, Deputy City Clerk.

ORDNANCE.—Washington, D. C.—Bids were recently received by the Bureau of Ordnance, War Department, for furnishing 500 3.8-in. cast-iron shell, model 1908 and 1,000 do. 4.7-in. and 600 6-in. siege howitzer, model 1907. Contract for this material was awarded to the NEW JERSEY FOUNDRY & MACHINE CO., New York, at $5.98, $3.10 and $1.97 each, respectively.

CEMENT.—New York, N. Y.—Bids are asked by the Department of Parks until 3 p. m., Feb. 25, for furnishing and delivering 100 bbls. Portland cement (No. 2, 1909) for parks, Borough of the Bronx. The time for the completion of the contract is before July 1, 1909.

Also for furnishing and delivering 100 bbls. Portland cement (No. 1, 1909). The time allowed for the delivery of the articles, materials and supplies, and the completion of the whole work will be 30 days.

NAVAL SUPPLIES.—Washington, D. C.—Bids are asked until Feb. 23 by the Bureau of Supplies and Accounts, Navy Dept., for furnishing the following supplies at Mare Island, Cal.: Schedule 867—150 lbs. elastic iron or steel cement. Sch. 869—12,000 lbs. galvanized steel. Sch. 870—6,000 lbs. steel bars, 10,000 lbs. steel plates, 6,300 lbs. brass pipe. Also until March 2 as follows: Mare Island, Cal.: Sch. 873—7 automatic motor hoists.

*PIER, DREDGING.—Milwaukee, Wis.—Bids were received as follows by Maj. W. U. Judson, Corps Engrs., U. S. A., on Feb. 12 for building reinforced-concrete caissons and pile pier, removing old pier and dredging at Milwaukee Harbor: Standard Construction Co., Chicago, Ill., $118,556; Samuel O. Dixon, Milwaukee, $124,299; William H. Gillen, Milwaukee, $105,065 (lowest bidder); Greiling Bros. Co., Green Bay, Wis., $121,980. Itemized list of bids will be given next week under Contract Prices.

WOODEN PONTOONS.—Mobile, Ala.—Bids were received as follows on Feb. 11 by Maj. H. Jervey, Corps Engrs., U. S.A., Mobile, for constructing 61 wooden pontoons: Ollinger & Bruce Dry Dock Co., Mobile, $16,000; A. F. Chastant and Sidoine E. Krebs, Scranton, Miss., $12,500; The Johnson Iron Works, New Orleans, La., $21,399; General Contract Co., New Orleans, $22,082; Gulfport Towing Co., Gulfport, Miss., $10,710; M. M. Flechas, Scranton, Miss., $9,800; Thos. M. Favre, Gulfport, Miss., $9,120; Chas. G. Ollinger, Mobile, $10,239; Gulf Dry Dock Co., Mobile, $10,991; Salmen Brick & Lumber Co., New Orleans, $26,000.

FIRE DEPARTMENT EQUIPMENT.—New York, N. Y.—Bids are asked until 10.30 a. m., March 2, by the Fire Department, Nicholas J. Hayes, Comr., for the following contracts: Boro. Manhattan—One first-size steam fire engine, eight first-size hose wagons, two second-size steam fire engines, two 75-ft. aerial hook and ladder trucks, and two 65-ft. aerial hook and ladder trucks. Boro. of The Bronx—Two third-size steam fire engines, and two 65-ft. aerial hook and ladder trucks. Boro. Brooklyn—Ten first-size hose wagons, two third-size steam fire engines, two 65-ft. aerial hook and ladder trucks. Boro. Queens—Two third-size steam fire engines and one 75-ft. aerial hook and ladder truck.

*BROKEN STONE.—New York, N. Y.—Bids were received on Feb. 9 by George Cromwell, Pres. Boro. of Richmond, for (A) furnishing and delivering 12,000 tons of 1½ and ¾-in. broken stone and screenings of trap rock, or Staten Island syenite, in Stone Delivery District No. 1; (B) for furnishing and delivering 8,000 tons of 1½ and ¾-in. broken stone and screenings of trap rock, or Staten Island syenite; (C) for furnishing and delivering 2,500 tons of 1¼ and ¾-in. broken stone and screenings of trap rock, or Staten Island syenite, or extra hard limestone, in Stone Delivery District No. 2; (D) for furnishing and delivering 12,500 tons of 1¼ and ¾-in. broken stone and screenings of trap rock, or Staten Island syenite, in Stone Delivery District No. 3. Bids were as follows: (A) Jacob E. Conklin, $1.50 per ton; Jos. A. Boyce, $1.69; Mountain Trap Rock Co., $1.43; CLINTON POINT STONE CO., 115 Broadway, New York, $1.35 (total $16,200; awarded contract); Jos. Johnson's Sons, West New Brighton, S. I., $1.50; Quinroy Const. Co., 1 Broadway, $1.625.

(B) Jacob E. Conklin, $1.75; Jos. A. Boyce, $1.63; Mountain Trap Rock Co., $1.77; Clinton Point Stone Co., 115 Broadway, $1.70; JOS. JOHNSON'S SONS, West New Brighton, S. I., $1.60 (total $12,800; awarded contract); Quinroy Const. Co., 1 Broadway, $1.75; Thos. Carlin, $1.80.

(C) Jos. A. Boyce, $1.63; Mountain Trap Rock Co., $1.77; CLINTON POINT STONE CO., 115 Broadway, $1.27 (total, $3,175; awarded contract); Jos. Johnson's Sons, West New Brighton, $1.40; Quinroy Const. Co., 1 Broadway, $1.40; Thos. Carlin, $1.62.

(D) Jacob E. Conklin, $2.15; Jos. A. Boyce, $1.84; Mountain Trap Rock Co., $2.09; Clinton Point Stone Co., 115 Broadway, $1.95; Jos. Johnson's Sons, West New Brighton, $1.98; QUINROY CONSTRUCTION CO., 1 Broadway, $1.75 (total, $21,875; awarded contract).

CONTRACT PRICES.

PAVING.—Seattle, Wash.—On Jan. 29 the Board of Public Works received bids for paving Fourth Ave. and Fourth Ave. South with vitrified brick, from (A) MacAdam & Co., Seattle; (B) Coast Concrete Co., Pacific Bldg., Seattle; (C) T. RYAN, Sullivan Block, Seattle (awarded contract); (D) Paul Steenstrup, Seattle; (E) C. J. Eric, 318 Columbia St., Seattle; (F) Hans Pederson, Alaska Bldg., Seattle; (G) Meacham & Babcock, Seattle; (H) Sparger Concrete Co., Colman Block, Seattle. Detailed prices submitted were:

	(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)
Fixed estimate	$1,300.00	$1,300.00	$1,300.00	$1,300.00	$1,300.00	$1,300.00	$1,300.00	$1,300.00
Clearing and grubbing (lump sum)	500.00	700.00	200.00	1,000.00	1.00	1,000.00	1,200.00	100.00
1,540 cu. yds. sub-grading	.60	.60	.60	.60	.50	.60	.50	.70
6 catch basins, single inlet	70.00	60.00	65.00	65.00	65.00	70.00	65.00	70.00
6 catch basins, double inlet	80.00	70.00	80.00	75.00	75.00	80.00	75.00	80.00
258 lin. ft. curbing curved granite	1.90	1.90	1.90	1.90	1.90	1.90	1.90	1.90
3,403 lin. ft. curbing, straight granite	1.65	1.55	.155	1.60	1.80	1.65	1.45	1.70
4,752 sq. yds. concrete sidewalks	1.10	1.00	.97	.95	1.40	1.10	1.10	1.00
8,005 sq. yds. paving, vitrified brick	2.75	2.55	2.60	2.55	2.50	2.75	2.90	2.65
9 sq. yds. paving, relaying sandstone blocks	2.00	1.00	2.65	1.50	.25	2.00	2.00	3.00
273 lin. ft. wood stop	.60	.40	.40	.40	.30	.60	.40	.40
7 monument cases	10.00	10.00	9.00	10.00	20.00	10.00	7.50	7.00
3 new inlets	25.00	15.00	18.00	25.00	15.00	30.00	5.00	20.00
10 manholes, adjusted	5.00	8.00	3.00	15.00	5.00	5.00	10.00	2.50
8,000 sq. yds. 4-in. gravel base	.18	.18	.18	.25	.15	.18	.18	.16
3,660 lin. ft. 3-in. tile drains	.18	.12	.10	.25	.25	.18	.15	.14
374 lin. ft. 16-in. c.-i. pipe, Class "B"	4.63	3.45	4.00	3.90	5.00	4.63	4.75	3.80
1,768 lin. ft. 16-in. c.-i. pipe, Class "A"	4.25	3.25	3.40	3.35	4.50	4.25	4.25	3.40
325 lin. ft. 6-in. c.-i. pipe, Class "A"	1.35	1.20	1.10	1.00	1.25	1.25	1.20	1.20
7 16-in. gates	180.00	130.00	118.00	140.00	135.00	135.00	150.00	140.00
5 6-in. gates	20.00	25.00	15.00	15.00	15.00	15.00	20.00	15.00
12 hydrants	142.00	124.00	115.00	125.00	115.00	125.00	112.00	110.00
300 lin. ft. 8-in. c.-i. pipe, Class "A"	1.50	1.50	1.40	1.50	1.50	1.50	1.60	1.40
12 brick gate chambers	45.00	60.00	40.00	30.00	35.00	35.00	30.00	35.00
1,680 lbs. special castings	.06	.10	.10	.07	.08	.05	.05	.50
7 cast-iron valve boxes	18.00	7.00	7.50	8.00	6.00	10.00	5.00	7.00
240 lin. ft. ¾-in. galv. iron pipe hyd. conns.	.35	.50	.30	.10	.20	.20	.30	.35
Totals	$53,459	$48,282	$47,906	$49,881	$51,638	$51,868	$53,438	$48,938

U. S. POSSESSIONS.

CROSS-TIES.—Panama.—The General Purchasing Officer, Isthmian Canal Commission, Washington, has awarded contract to G. S. BAXTER & CO., 15 William St., New York, for furnishing 200,000 cypress cross-ties, 7 × 9 ins. × 8½ ft., at $141,700, 70.85 cts. per tie, and also a number of switch ties at $5,460.

ELECTRIC RAILWAY.—Hawaii.—The Pearl Harbor Traction Co., of Honolulu, Hawaii, has filed an application with the Territorial Treasurer asking for a charter for this company, which proposes to extend the lines of the Honolulu Rapid Transit Co. to the Naval Station at Puuloa, Pearl Harbor. Capital stock, $100,000. L. Tenney Peck, Pres.; Alfred L. Castle, Secy.; Charles H. Atherton, Treas.

RAILS.—Panama.—Bids were received as follows on Feb. 15 by the General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., for furnishing 684 gross tons 90-lb. steel rails: Bethlehem Steel Co., South Bethlehem, Pa., $21,033, 60 days; R. C. Hoffman Co., Baltimore, $21,288, 45 days; 5 per cent. second quality; United States Steel Products Export Co., 50 Church St., New York, $21,204; 55 days.

HYDRO-ELECTRIC PLANT.—Alaska.—Plans are being made to construct a hydro-electric plant to furnish electricity to operate the machinery in the Alaska-Treadwell mines. It is proposed to erect a plant on the Taku River, about 30 miles distant, to be transmitted to Treadwell, Mexican, Seven Hundred, Ready Bullion and Three Hundred mills and mines of the Treadwell group of Southeastern Alaska. The cost of the plant is estimated at about $750,000. Robert A. Kenzie is Gen. Supt., Treadwell, Alaska.

DRYDOCK.—Hawaii.—Bids were received as follows on Feb. 13 by the Bureau of Yards and Docks, Navy Dept., Washington, D. C., for constructing a concrete and granite drydock approximately 1,140 ft. long, 130 ft. wide and 35 ft. deep, at the Naval Station, Pearl Harbor, Hawaii: Edward Malley, 1384 McAllister St., San Francisco, Cal., (Item 1) $2,670,175, (2) $2,729,610, (3) $2,729,610, (4) $5,500, (5) $2,584,300, (6) $2,616,000, (7) $2,616,000, (8) $5,500, (9) $17, (10) $20, (11) $60, (12) 85 cts.

Cotton Brothers & Co., 241 Bacon Bldg., Oakland, Cal., (Item 1) $2,950,000, (2) $2,976,400, (3) $2,980,500, (4) $4,000, (5) $2,847,000, (6) $2,870,000, (7) $2,874,400, (8) $3,500, (9) $37.50, (10) $18, (11) $1.10, (12) $3.30.

MacArthur Brothers Co., 11 Pine St., New York, (Item 1) $3,468,000 (2) $3,554,000, (3) $3,568,000, (4) $5,382, (5) $2,259,000, (6) $3,326,000, (7) $3,343,000, (8) $5,000, (9) $25, (10) $8, (11) $1.35, (12) $2.40.

San Francisco Bridge Co., 865 Monadnock Bldg., San Francisco Cal., (Item 1) $2,946,000, (2) $2,996,000, (3) $3,004,000, (4) $4,400, (5) $2,846,000, (6) $2,896,000, (7) $2,904,000, (8) $4,000, (9) $25, (10) $10, (11) 54 cts., (12) $1.

McDermott Contracting Co., 1116 Pennsylvania Bldgs., Philadelphia, Pa., (Item 1) $3,400,000, (2) $3,430,000, (3) $3,450,000, (4) $6,000, (5) $3,310,000, (6) $3,340,000, (7) $3,350,000, (8) $6,000, (9) $10, (10) $20, (11) 50 cts., (12) 60 cts.

E. J. Lord Construction Co., Campbell Block, Honolulu, T. H., (Item 1) $2,596,739, (2) $2,645,928, (3) $2,659,860, (4) $4,782, (5) $2,559,039, (6) $2,605,928, (7) $2,619,547, (8) $4,506, (9) $12.90, (10) $10.60, (11) 70 cts., (12) 70 cts.

Pacific Construction Co., 16 California St., San Francisco, Cal., (Item 1) $2,371,700, (2) $2,442,900, (3) $2,442,700, (4) $3,480, (5) $2,292,700, (6) $2,336,500, (7) $2,364,100, (8) $3,360, (9) $15.42, (10) $14, (11) 54 cts.; (12) 65 cts.

C. M. Leach, care Navy Yard, Boston, Mass., (Item 1) $1,886,883, (2) $1,914,823, (3) $1,918,100, (4) $5,300, (5) $1,903,437, (6) $1,927,583, (7) $2,025,683, (8) $5,400, (9) $27, (10) $10, (11) 25 cts., (12) $8.50.

INDUSTRIAL NOTES.

McCLINTIC-MARSHALL CONSTRUCTION CO., designers, manufacturers and erectors of steel buildings, bridges, etc., Pittsburg, Pa., has opened an office in 839 Central Building, Seattle, Wash. Mr. C. F. Boyce is the Sales Representative in charge.

THE HERRINGBONE METAL LATH CO., New York City, sales agents of the General Fireproofing Co., has moved its offices and warehouse to 257-263 East 133d St., New York City, where the enlarged facilities will enable it to properly take care of the increased business anticipated during the coming year.

THE VIRGINIA METAL MFG. CO., of Portsmouth, Va., has been awarded the contract for the general sheet metal work on the double set of officers' quarters in the Marine Barracks Reservation, Norfolk, Va., Navy Yard, [illegible] under way. R. H. Richardson, Hampton, Va., are the [illegible]

ANNOUNCEMENT IS MADE of the Standard Roller Bearing Co., of Philadelphia, of the further expansion of [illegible] tion by the appointment of [illegible] organization, formerly Sales Manager, [illegible] Germane, Assistant General Manager of the company, J. Heller [illegible] as Sales Manager and F. [illegible] Lawrence as Western Representative, [illegible] letter with headquarters at Chicago.

THE MINNEAPOLIS STEEL & MACHINERY CO., Minneapolis, [illegible] given the contract for furnishing engine for elevator "D" [illegible] dated Elevator Co., Duluth. [illegible] will install a 26 and 52 × 48 [illegible] dem compound Twin City [illegible] with fly-wheel 16 ft. in diameter [illegible] for twenty-two 2-in. ropes.

J. EVERTON & SON, [illegible] Minn., have placed an order [illegible] neapolis Steel & Machinery [illegible] apolis, Minn., for an 80-HP [illegible] ducer gas engine and gas producer [illegible] a 53-KW. D. C. generator, [illegible] direct connected to the engine [illegible] chinery will be installed in [illegible] light plant at Deer River.

THE ANDRESEN-EVANS CO., [illegible] adnock Block, Chicago, engineers [illegible] and coal handling plants, and [illegible] has developed new types of [illegible] loading and conveying bridges, [illegible] ets, etc., for such plants. Mr. [illegible] Evans has resigned his position [illegible] of Sales of the Chicago office [illegible] Joint Co. in order to give his [illegible] tention to the affairs of the Andresen-Evans Co.

THE YOUNGSTOWN CAR MFG. CO., [illegible] builders of dump cars, contractors' cars and the like, has recently moved [illegible] Chicago office, and it is now located at 1201 Fisher Bldg. The office is in charge of Mr. Charles B. Owens, formerly of the American Car & Foundry Co. The company also has engaged the services of Mr. K. M. Zorn as constructing engineer and sales [illegible], with offices at 120 Noble Road, East Cleveland, O.

WARREN WOOD, of the Wood Drill Works, Paterson, N. J., and Robert J. Wood, Manager of the Chicago branch, will leave the United States on Feb. 19 for a three weeks' visit to the Panama Canal Zone for the purpose of inspecting the work done by "Wood" rock drills, and upon their return the Wood Drill Works will publish a booklet containing valuable cost data and comparisons, with some interesting views along the Canal.

THE PITTSBURG METER CO., Pittsburg, Pa., announces that to more effectively serve its patrons and handle the rapidly increasing business, it has become necessary to open district offices and carry a stock of meters in Chicago and Kansas City, in addition to the district office at 149 Broadway, New York City. Mr. Alexander Prussing, as district manager, will be in charge of the Chicago office at 256 Madison St., and Mr. R. M. Stotler will occupy a similar position at Kansas City, with offices at 6 West Tenth St.

HEENAN & FROUDE, LIMITED, Engineers, of Manchester and Worcester, England, have been awarded a bronze medal by the Royal Sanitary Institute in connection with the model of a refuse destructor exhibited by them at the Health Exhibition, held at Cardiff, July, 1908. They announce that a contract for a Heenan destructor of 60 tons daily capacity, complete with water tube boiler, superheaters, clinker crushing machinery, and buildings for the City of Adelaide, N. S. W., has just been awarded; also contract for a 50-ton Heenan destructor for the city of Penang, Straits Settlements.

A. C. CHENOWETH, 16 Court St., Brooklyn, N. Y., states that a Chenoweth machine is in operation at St. Louis, manufacturing concrete piles on a contract with the St. Louis Electrical Bridge Co. to manufacture and drive some 2,000 concrete piles to be used under the piers and approaches of a new bridge to cross the Mississippi River at that place. The Chicago, Burlington & Quincy R. R. will operate a plant and use a number of the Chenoweth piles in their work this season, and a shipment has been recently made of a plant to Havana, Cuba, for the reconstruction of a dock in the Harbor of Havana at once.

THE FOUNDATION CO., 115 Broadway, New York City, is now at work on a contract covering the foundations for the West Tuberculosis Infirmary at the Metropolitan Hospital District, Blackwell's Island, City of New York, for the

Department of Public Charities, City of New York. The foundations will consist of simplex concrete piles reinforced, all being driven to rock. The general contractor is the Bottsford-Dickinson Co., Inc., 170 Broadway, New York, and the work is being done under the direction of and on drawings and specifications prepared by Raymond F. Almirall, Archt.

IN ORDER TO AFFORD ENGINEERS, architects and others interested in foundation construction an opportunity of familiarizing themselves at first hand with its methods, the Raymond Concrete Pile Co., of New York and Chicago, will give, at the coming Cincinnati cement show, working demonstrations of its system of making and placing concrete piles. The Raymond system consists of placing a sheet steel shell in the soil by means of a collapsible steel core, withdrawing the core and thereupon filling the shell, previously subjected to a searching examination, with concrete. The entire operation will be shown at the Raymond Company's booth. A model pile driver will be employed in the placing of the shells.

THE SANDUSKY PORTLAND CEMENT CO., of Sandusky, Ohio, is supplying its white Portland cement for use in the following important contracts: In mausoleum construction at Decatur and El Paso, Ill.; on the Studebaker private residence, South Bend, Ind.; for setting and pointing Vermont marble, Columbia Theater, St. Louis; for exterior ornamental work on Tripp's Dancing Academy, St. Louis; exclusively on the Italian Gardens, Cheeseman Park, Denver, Colo.; for wainscoting in the New City Hospital, St. Louis, Mo.; Emigrant Savings Bank, New York City; and is also furnishing its Medusa waterproof compound for the following important contracts: One hundred cement cisterns being constructed by Board of Public Works, San Francisco, Cal.; in the roofs of the Southern Pacific Ry. Co.'s hospital; to the Quartermaster's Department, U. S. A., Key West, Fla.; in the cement vaults for the Title Trust Co., Seattle, Wash.; exterior of plaster on the Perry apartments, Seattle, Wash.; in the Diamond Ice Co.'s plant, Seattle, Wash.

THE NELSON VALVE CO., Chestnut Hill, Philadelphia, Pa., has recently given up its New Jersey charter and is being incorporated under the laws of Pennsylvania. The new charter will empower the company to manufacture and sell pipe, valves, machinery, fittings and steam specialties, and will have an authorized capital of $1,000,000. The president of the new company, who was also president of the old one, is Mr. Samuel F. Houston, who is Vice-President of the Real Estate Trust Co., Philadelphia, and Vice-President of the Winifrede Coal Co. and of the Winifrede R. R. Co. Mr. Carlisle Mason is the Vice-President and, as heretofore, General Manager, and Mr. Russell Bonnell, the Secretary-Treasurer. Mr. Henry H. Bonnell is also one of the incorporators. The company is now manufacturing a new valve calculated to stand the pressure of super-heated steam. The new valve, which will be of large diameter chiefly, is being made of the finest grade of cast-steel, reinforced with nickel, so that the action of the steam will have no deleterious effect upon it, and that it will be always reliable. The company is erecting several reinforced concrete factory buildings and expects to open a general office in Philadelphia.

THE MASSILLON BRIDGE & STRUCTURAL CO., recently incorporated with a capital stock of $250,000, has purchased the bridge plant at Massillon, and will manufacture bridges and steel structures of all classes. The official staff of the company is as follows: H. A. Croxton, Pres.; C. S. Davis, Vice-Pres. and Gen. Mgr.; Miles C. Bland, Ch. Engr.; E. Rice, Secy. and Treas.; C. D. Yost, Asst. Secy. and Treas.; Robert M. Reay, Supt. of Shops; Robert Sweed, Supt. of Erection. Mr. Croxton is President of the Massillon Iron & Steel Co., and is identified with other manufacturing industries at Massillon. Mr. Davis was 12 years Chief Engineer of the Massillon Bridge Co., and three years Chief Engineer of the Toledo-Massillon Bridge Co. Mr. Bland was Contracting Mgr. for the American Bridge Co. at Cleveland four years, and contracting Engineer for the Pittsburg Steel Construction Co. for one year. Mr. Rice was Plant Engineer for the Massillon Bridge Co. 12 years, and Plant Engineer for the Toledo-Massillon Bridge Co. three years. Mr. Reay has been Superintendent of the plant at Massillon for 30 years. Mr. Sweed had charge of the erection work for the Massillon Bridge Co. 26 years, and for the Toledo-Massillon Bridge Co. three years.

THE UNITED STATES NAVY DEPARTMENT has just awarded the contract for ashes handling and storage plant for the Navy Yard at Charleston, S. C., to the Darley Engineering Co., 149 Broadway, New York. The contract calls for one 8-in. patented suction conveyor, with a 25-ton storage tank. This makes the fourth order the Darley Engineering Co. has received from the Government for their patented suction ashes conveyors since last May; the others being for the Navy Yards at New York and Philadelphia, and for the Soldiers' Home at Washington. Messrs. Armour & Co. have just awarded the Darley Company, through their Chicago office, a contract for an 8-in. patented suction ashes conveyor for their South Omaha plant. This makes the fourth order for these conveyors awarded by Armour & Co. to this company; the other plants being installed at the Chicago Glue Works, East St. Louis packing plant, and the Sioux City Packing Co. The recent order from the American Steel & Wire Co. for an 8-in. patented suction ashes conveyor for their Rankin plant makes the third order for these conveyors so far from the United States Steel Corporation, and two orders from the American Steel & Wire Co. The Quincy Market Cold Storage & Warehouse Co., Boston, Mass., has just placed an order for a similar conveyor for their Richmond St. plant.

TRADE PUBLICATIONS.

MEASURING TAPES.—The Lufkin Rule Co., Saginaw, Mich. Catalog No. 8. 3 × 5 ins.; pp. 96; illustrated.

This catalog describes all kinds of tapes, rules and other measuring devices made by the Lufkin Co.

CEMENT.—Edison Portland Cement Co., New Village, N. J. 11 × 8 ins.; pp. 64; illustrated.

This is a series of half-tone views of the various constructions on which Edison Portland Cement has been used.

SPRAY PUMPS.—The Goulds Mfg. Co., Seneca Falls, N. Y. Form 7721. Paper; 3½ × 6¼ ins.; pp. 11; illustrated.

This pamphlet contains descriptions and price list of several styles of barrel spray pumps for orchardists and farmers.

DUMP WAGONS.—Troy Wagon Works Co., Troy, Ohio. Paper; 3½ × 6½ ins.; pp. 4; illustrated.

This is a brief description of a 2½-yd. bottom dump wagon adapted for handling street material, street sweepings, snow, etc.

CONCRETE MIXER.—Chain Belt Co., Milwaukee, Wis. 4 × 9 ins.; pp. 15; illustrated.

This pamphlet describes the Chain Belt Concrete Mixer, a machine of the drum type, driven from an adjoining shaft by a chain belt; hence the name.

RAILWAY SIGNALING.—The School of Railway Signaling, Utica, N. Y. Paper; 4½ × 9½ ins.; pp. 20.

This is the prospectus of a course of instruction by correspondence. It gives a list of prominent signal engineers as forming an "advisory board."

CONCRETE MIXER.—Keystone Engineering Co., Wilkes-Barre, Pa. 4 × 9 ins.; pp. 8; illustrated.

The Hudsel Non-Tilting Concrete Btach Mixer, which this pamphlet describes, is a batch mixer of the non-tilting drum type. It is of very simple construction.

SMALL TRANSFORMERS.—General Electric Co. Folder 3744. Paper; 3 × 6 ins.; pp. 6; illustrated.

For moving-picture arc lamps a transformer has been designed to replace the common rheostatic control, with great power saving. This is described in this folder.

CEMENT.—Pennsylvania Cement Co., 26 Cortlandt St., New York City. 8½ × 12½ ins.; pp. 46; illustrated.

The title "Important Works in Which Pennsylvania Portland Cement Has Been Used" fully explains the book. The half-tones of executed work are particularly good.

METAL BUILDING MATERIAL.—The Berger Mfg. Co., Canton, O. 3 × 6 ins.; pp. 16; illustrated.

This company makes all sorts of metal fittings and devices, of which those suitable for partitions, floors, roofs, sidewalk lights and concrete reinforcement are described in this catalog.

VENTILATING FANS.—The Emerson Electric Mfg. Co., St Louis, Mo. Paper; 5¼ × 7¼ ins.; pp. 63; illustrated.

These are electric fans with alternating-current motors. They include portable fans for desks, offices, etc., and fans supported on posts or suspended from ceiling attachments for use in restaurants, stores, etc.

CONCRETE REINFORCEMENT.—Trussed Concrete Steel Co., Detroit, Mich. 5½ × 8 ins.; pp. 32; illustrated.

This is a pamphlet devoted to "Hy-Rib," a sort of metal lath manufactured by the above company, which they claim to be highly useful for both concrete reinforcement and plaster backing.

RAIL JOINTS.—The Rail Joint Co., New York City. Catalog No. 3. Paper; 9½ × 6 ins.; pp. 30; illustrated.

This catalog contains perspective and sectional illustrations of "Continuous," "Weber" and "Wolhaupter" rail joints for tee and girder rails. Compromise and insulated joints are shown in a variety of styles.

BELT CONVEYORS.—Robins New Conveyors Co., 38 Wall St., New York City. Bulletin 1. Paper; 6 × 9 ins.; pp. 25; illustrated.

This bulletin is a reprint of a paper read by C. K. Baldwin, M. Am. Soc. M. E., before the American Society of Mechanical Engineers on "The Belt Conveyor." It is for general distribution.

VALVES AND FITTINGS FOR AMMONIA.—Crane Co., Chicago. Cloth; 4¼ × 6¾ ins.; pp. 128; illustrated.

This is an illustrated catalog and price list of fittings for ammonia pipe systems, these fittings being malleable castings or a special close-grained cast iron. The valves have soft metal seats and steel stems, and when open they can be re-packed under pressure. Numerous tables are given of strength of pipe, pipe threading, pipe bends and the use of ammonia in refrigerating work.

CONCRETE SIDEWALK FORMS.—Zeiser Bros., Berwick, Pa. 7 × 5 ins.; pp. 16; illustrated.

These forms consist of metal strips, so constructed on the ends that they can be used as transverse ties between the wooden side form for concrete sidewalks, at the same time serving to form an expansion joint.

ALLAN ANTI-FRICTION METAL.—A. Allan & Son, N. Y. Bulletin II. Paper; 6 × 9 ins.; pp. 32; illustrated.

The method of applying Allan metal to pistons by peaning into dove-tailed grooves is explained and illustrated by dimensioned sectional views. A table is given showing weights of Allan metal rings of different sizes.

MULTIPLE DRILLS.—Pratt & Whitney Co., Hartford, Conn. Paper; 9 × 12 ins.; pp. 27; illustrated.

A great variety of types and sizes of multiple spindle and gang drills are illustrated and described. Tables of specifications are given for the drills described, including principal dimensions, weights and number and sizes of drills used.

WIRE ROPE.—A. Leschen & Sons Rope Co., St. Louis, Mo., 3 × 6 ins.; pp. 8. illustrated.

this company makes a wire rope in which each outside strand is flattened so as to make the surface of the rope a true smooth cylinder. The pamphlet sets forth the advantages of this style over the ordinary round strand rope.

AUTOMATIC STOKER.—The Wallis Stoker & Mfg. Co., Terre Haute, Ind. Paper; 6 × 9¼ ins.; pp. 16; illustrated.

The pamphlet is devoted mainly to the Wallis automatic traveling chain-grate stoker, the links of which (forming the grate) are 6 × 12 ins., with herring-bone slots. A circular revolving-grate stoker and a feed water heater are mentioned.

CRUSHING AND ROAD-BUILDING MACHINERY.—American Road Machine Co., Kennett Square, Pa. 320 annual catalog. Paper; 7 × 9½ ins.; pp. 60; illustrated.

This catalog describes "Champion" rock crushers and elevators, hauling and portable engines, road machines, plows, scrapers, sweepers and reversible road rollers. This company undertakes to furnish repair parts for road machines of any make.

REINFORCED CONCRETE.—Trussed Concrete Steel Co., Detroit, Mich. 5 × 8 ins.; pp. 84; illustrated.

The title of the pamphlet is "A Partial List of Structures in which Kalm System Products Have Been Used Prior to Dec. 1, 1908." It consists of a geographically arranged list of such buildings, together with facsimile letters of commendation.

MANGANESE STEEL CRUSHER PARTS.—Taylor Iron & Steel Co., High Bridge, N. J. Paper; 6½ × 9½ ins.; pp. 48; illustrated.

This booklet sets forth the advantages of manganese steel for the wearing parts of jaw and gyratory crushing machinery. Manganese steel spur and bevel gears, sprocket, sheave and car wheels and detachable link belting are discussed and illustrated.

TRENCHING MACHINE.—The Heffron Trenching Co., 810 Neave Building, Cincinnati, O. Card; folder; 5½ × 3½ ins.; pp. 4; illustrated.

This folder gives views and brief particulars of the work of this machine, which is a cable-operated scraper rising at one end on an incline to an elevated dumping platform. The wagons on the surface drive beneath this platform.

For other Proposal Advertisement see pages 51, 52, 54, 56, of Advertisements and Construction News page 38.

WATER-WORKS.

DEPARTMENT OF PUBLIC WORKS.
Bureau of Water.
Office, 790 City Hall,
Philadelphia, February 15, 1909.

Sealed proposals endorsed "Bids for (Name work bid upon)," and addressed to the nudersigned, at the office above mentioned, will be received until 12 o'clock, noon, on Monday, March 15, 1909, for

Contract No. 154—Queen Lane Filter Station.

Contract No. 160—Restoring Sand to the Belmont, Upper and Lower Roxboro and Torresdale Filters.

Advertisement for contract No. 154 is made and the contract will be awarded subject to appropriations to be made by City Councils.

Specifications, drawings and blank forms upon which bids must be made can be obtained at the office of the Chief of the Bureau of Water, Room 790-A, City Hall, to whom all communication should be addressed.

No bid will be considered unless accompanied by a certificate from the City Solicitor that the provisions of an ordinance requiring proposal bonds when the bids exceed in amount five hundred dollars, approved May 25, 1860 (p. 81, West), have been complied with.

The Director reserves to himself the right to reject any or all bids, as he may deem best for the interests of the city.

GEORGE R. STEARNS,
Director.

SEWAGE DISPOSAL.

Asbury Park, N. J.

Sealed proposals will be received by the Council of the City of Asbury Park, New Jersey, at the Council Chamber of the said City, at 8 p. m., March 1, 1909.

Said proposals to cover the furnishing of materials and the performance of labor required for the construction and equipment of sewage disposal works and the connection therewith of the city sewers and the sea outlet pipes, all in accordance with plans and specifications now on file in charge of the City Clerk.

Copies of the specifications and plans may be seen also at the office of the engineers, City Wastes Disposal Company, 156 Fifth Avenue, New York City.

Approximately the proposed work consists of:—

About 5,400 cubic yards of excavation in sand, gravel and possibly clay (no rock) partly below ground-water level;

About 300 feet of vitrified pipe sewers, 12 to 20 inches in diameter;

About 1,100 cubic yards of concrete, part reinforced, in foundations, walls, floors and roofs of sewage tanks, pump-well, etc.

The construction of a small concrete pump-house;

The equipment of the pumping station with three centrifugal pumps, four electric motors, screw conveyors, screens, piping, valves, etc.

The building of a sea bulkhead about 90 feet long.

The repaving of Ocean Avenue, building of manholes, grading, etc., etc.

Each bid must be accompanied by a certified check for Two Thousand Dollars ($2,000) as a guarantee that the bidder, if his bid be accepted, will execute the contract and furnish the required bond.

Each bid must be made on blank forms to be obtained from the City Clerk or the engineers.

The City reserves the right to reject any or all bids.

All bids must be enclosed in sealed envelopes, marked "Proposal for the Construction of Sewage Disposal Works," and each must be enclosed in a second envelope addressed to

WILLIAM C. BURROUGHS,
City Clerk, Asbury Park, N. J.
City Wastes Disposal Co., Engineers,
156 Fifth Avenue, New York City.

CATSKILL AQUEDUCT.

New York, N. Y.

Sealed bids or proposals will be received by the Board of Water Supply, in the office of the Board, 299 Broadway, New York, Room 910, ninth floor, until 11 A. M., on March 11, 1909, for the construction of a portion of the Catskill aqueduct, consisting of 5,450 feet of plain concrete conduit, known as Yorktown cut-and-cover, 17 feet high by 17 feet 6 inches wide, and two tunnels, 17 feet high by 13 feet 4 inches wide, on the hydraulic gradient, having a combined length of 6,450 feet, and known as Hunter's Brook and Scribner tunnels, situated east of the Hudson river in the town of Yorktown, Westchester county, New York.

An approximate statement of the quantities of the various classes of work and further information are given in the Information for Bidders, forming part of the contract. At the above place and time the bids will be publicly opened and read. The award of the contract, if awarded, will be made by the Board as soon thereafter as practicable.

Two or more bonds, the aggregate amount of which shall be two hundred

forty thousand dollars ($240,000), will be required for the faithful performance of the contract. No bid will be received and deposited unless accompanied by a certified check upon a National or State bank, drawn to the order of the Comptroller of The City of New York, to the amount of twenty-five thousand dollars ($25,000). Time allowed for the completion of the work is 42 months from the service of notice by the Board to begin work. Pamphlets containing information for bidders, form of contract, specifications, etc., and pamphlets of contract drawings, can be obtained at Room 1515 at the above address, by depositing the sum of ten dollars ($10) for each pamphlet, or twenty dollars ($20) for each set, to insure their return in acceptable condition within thirty days from the date upon which bids are to be opened.

JOHN A. BENSEL,
President;
CHARLES N. CHADWICK,
CHARLES A. SHAW,
Commissioners of the Board of Water Supply.
J. WALDO SMITH,
Chief Engineer.
THOMAS HASSETT,
Secretary.

WATER PIPE.

WATER DEPARTMENT.
Newark, N. J., February 16, 1909.

Sealed proposals will be received between 3.15 and 3.30 o'clock P. M. and opened at the last named hour on Thursday, February 25th, 1909, at a public meeting of the Board of Street and Water Commissioners, City Hall, for the following coated cast-iron water pipe and special castings:

755 short tons from 6 to 8 inches.
779 short tons from 10 to 16 inches.
405 short tons from 20 to 24 inches.
125,000 pounds of ordinary specials.

All f. o. b. cars, Newark, N. J., according to specifications which will be furnished upon application to the undersigned.

Proposals must be accompanied by the consent in writing of two sureties (resident of Essex County, N. J.) or surety company authorized to do business in New Jersey, who qualify as to their responsibility in the amount of the proposal, and agree to become sureties for the faithful performance of the contract if awarded.

By direction of the Board.

M. R. SHERRERD,
Chief Engineer.

PUMPING ENGINE.

Kansas City, Mo.

NOTICE TO BIDDERS.

Sealed proposals will be received by the Board of Fire and Water Commissioners, at their office in the City Hall, in Kansas City, Missouri, until 2 o'clock p. m., Thursday, March 11th, 1909, for the construction, delivery and erection of a vertical, crank and fly-wheel engine, direct connected to a centrifugal pump, in every way complete for continuous service, upon proper foundation provided by the City, in the present building at Quindaro Pumping Station, Quindaro, Kan.

The pumping engine to have sufficient power and capacity to pump water continuously at the rate of twenty-five million (25,000,000) U. S. gallons in twenty-four (24) hours from the Missouri River at a low stage of 1 to 4 feet above Kansas City datum into the settling basin at Quindaro, Kan., against a head equal to 60 feet above Kansas City datum, measured on the force mains at the pump, with a steam pressure of one hundred and fifty pounds per square inch, in accordance with the plans and general specifications on file in the office of the Water Deparfment, Kansas City, Missouri.

INSTRUCTIONS.

Bidders will state a price in the aggregate for doing all the work mentioned in the specifications.

All proposals must be made upon the forms furnishd by the Board of Fire and Water Commissioners.

Each proposal must be submitted in a sealed envelope, and endorsed upon the outside, "Proposal for Constructing and Erecting a Pumping Engine, Kansas City, Mo.," and addressed, "Board of Fire and Water Commissioners."

Each proposal must be accompanied by plans and specifications in sufficient detail to fully and distinctly show and describe the pumping engine proposed to be furnished, and the necessary foundations, also a definite statement of the guaranteed duty, and the approximate weight of said pumping engine.

No proposal will be considered unless accompanied by cash or certified check on a solvent Kansas City bank, or solvent trust company, made payable to the City Comptroller, amounting to Two Thousand ($2,000) Dollars, as a guarantee that should the contract be awarded to such parties, they will within ten (10) days after award of contract, enter into contract and furnish security satisfactory to the City Comptroller, for the construction, delivery and erection of the pumping engine named in such proposal. In case of failure or neglect of the parties to enter into a contract, said certified check, or cash, shall be immediately forfeited, without recourse, to Kansas City.

Each proposal shall contain a statement definitely guaranteeing the time in which the pumping engine shall be installed ready for regular service.

When firms bid, the individual members shall sign their full names, with places of residence, as well as the name of the firm.

Two proposals from one person, firm or association, under different names, will not be considered.

Bidders are requested to be present at the opening of the bids.

The Board of Fire and Water Commissioners does not bind itself to accept the lowest, or any bid offered, and reserves the right to reject any or all bids, or to waive any irregularity or informality in the bids, when it seems to be to the interest of Kansas City so to do.

WATER-WORKS.

Shattuck, Okla.

Bids will be received by the City Secretary of the City of Shattuck, Oklahoma, and by him publicly opened on March 8th, for the purchase of all material necessary in the construction of a system of water-works which will include two return tubular boilers, one feed water heater, two boiler feed pumps, one air compressor, two duplex pumps, cast-iron pipe, hydrants, valves, etc. Specifications can be had by addressing the O'NEILL ENGINEERING COMPANY, Dallas, Texas.

CATSKILL AQUEDUCT.

New York, N. Y.

Sealed bids or proposals will be received by the Board of Water Supply, in the office of the Board, No. 299 Broadway, New York, Room 910, ninth floor, until 11 A. M., March 9, 1909, for the construction of a portion of the Catskill aqueduct, consisting of about 1 mile of tunnel on the hydraulic gradient, known as Bull Hill tunnel, 17 feet high by 13 feet 4 inches wide inside, lined with concrete; and two short stretches of plain concrete conduit, known as cut-and-cover aqueduct, at the ends of the tunnel, about ½ mile long, 17 feet high by 17½ feet wide inside, situated in the town of Phillipstown, Putnam County, New York.

An approximate statement of the quantities of the various classes of work and further information are given in the Information for Bidders, forming a part of the contract. At the above place and time the bids will be publicly opened and read. The award of the contract, if awarded, will be made by the Board as soon thereafter as practicable.

Two or more bonds, the aggregate amount of which shall be two hundred and fifty thousand dollars ($250,000), will be required for the faithful performance of the contract. No bid will be received and deposited unless accompanied by a certified check upon a National or State bank, drawn to the order of the Comptroller of The City of New York, to the amount of twenty-five thousand dollars ($25,000).

Time allowed for the completion of the work is 38 months from the service of notice by the Board to begin work.

Pamphlets containing information for bidders, form of contract, specifications, etc., and pamphlets of contract drawings, can be obtained at Room 1515 at the above address, by depositing the sum of ten dollars ($10) for each pamphlet, or twenty dollars ($20), for each set, to insure their return in acceptable condition within thirty days from the date upon which bids are to be opened.

JOHN A. BENSEL,
President;
CHARLES N. CHADWICK,
CHARLES A. SHAW,
Commissioners of the Board of Water Supply.
J. WALDO SMITH,
Chief Engineer.
THOMAS HASSETT,
Secretary.

U. S. ENGINEER OFFICE, Pittsburg, Pa., Feb. 15, 1909.—Sealed proposals for building lock gates and lock operating machinery for Lock 5, at Brownsville, Pa., on the Monongahela River, will be received at this office until 12 M., Eastern Standard Time, March 17, 1909, and then publicly opened. Information furnished on application. H. C. NEWCOMER, Maj., Engrs.

Situations Wanted

Civil Engineers.

GRADUATE Mechanical and Civil Engineer, 2 years' railroad experience (levelman), good draftsman, desires position with railroad or contractor. Location immaterial; salary up to employer. Address "A. A. 7," Engineering News, New York. 7-1t

GRADUATE CIVIL ENGINEER, 2 years' experience as instrumentman, draftsman, computer in sewerage, sewage disposal and water supply work. Speaks French and Spanish. Address "R. A. 7," Engineering News, New York. 7-1t

CIVIL ENGINEER, graduate of a prominent engineering institute, wants situation. Has 15 years' experience at railroad and mining engineering. Has complete set of engineering instruments. Address "E. A. 7," Engineering News, New York. 7-4t

CIVIL ENGINEER, experienced in general municipal engineering and land development, desires position with hydraulic engineer; eight years' experience; technical education; now employed. Address "D. A. 7," Engineering News, New York. 7-3t

Surveyors.

INSTRUMENT and officeman, employed, desires change; can take charge; must be permanent; references. Address "P. A. 7," Engineering News, New York. 7-3t

INSTRUMENTMAN (25), 3½ years' experience railroad and city work, good draftsman, familiar with stadia, energetic, intelligent worker, adaptable to conditions. Prefers work with a future. Address "C. A. 7," Engineering News, New York. 7-2t

Draftsmen.

DRAFTSMAN, C. E. graduate, first-class structural engineer, 7 years' experience, railroad and building work. Knowledge of reinforced concrete. Proficient with transit and level. Will go anywhere. A hustler and will positively make good. Address "Z. A. 7," Engineering News, New York. 7-1t

Superintendents, Misc., etc.

ENGINEER wishes position as general superintendent; thoroughly experienced in design and construction of reinforced concrete and steel frame buildings. Address "O. A. 7," Engineering News, New York. 7-12t

POSITION by man with best of reference, having 6 years' experience as superintendent of construction in reinforced concrete buildings. At present with one of the largest fireproofing companies in U. S. Location immaterial. Address "F. A. 7," Engineering News, New York. 7-1t

EXPERIENCED building superintendent desires position as estimator in contractor's office, 9 years' experience, good draftsman, understands reinforced concrete. Address "W. A. 7," Engineering News, New York. 7-3t

GRADUATE ENGINEER and superintendent (31), ten years' experience in heavy foundation work, concrete design and construction (plain and reinforced) steel bridge erection, grade reduction, surveying, rock tunneling, mining, railway maintenance, elevating plant and railroad building construction. A hustler with executive ability, whose aim is good work at least cost. Will accept anything under above headings; rate, $1,800. Address "C. I.," 2332 North 42d Ave., Chicago, Ill. 7-2t

MANAGER OR SUPE[illegible]ENDENT.—A civil engineer who is [illegible]ar with and has handled large con[illegible]s for fifteen years is open for enga[illegible]t. Experienced in deep foundati[illegible]r pressure, concrete, steam shovels, excavation, dredging, docks, etc. [illegible] like New York interview. Addres[illegible] A. 7," Engineering News, New Yo[illegible] 7-1t

ENGINEER, with 8 years [illegible]erience on road, sewers, drainage a[illegible]ilding location and construction [illegible]class references. Address "H. [illegible] Engineering News, New York. 7-1t

SUPERINTENDENT OR [illegible] ENGINEER.—Graduate engineer[illegible]. Assoc. Member A. S. C. E.; thir[illegible]ears superintending construction [illegible] docks, piers, locks, dams, power [illegible]nts and buildings and as chief engi[illegible] contracting company directing work [illegible]regating $5,000,000 at one time. G[illegible]xecutive, energetic, experienced in [illegible]ganizing large forces and designing [illegible]nt for rapid and economical wor[illegible] Salary, $5,000. Address "W. C. A.," [illegible]dle City Station, Philadelphia, Pa. 7-3t

ENGINEER, with wide experie[illegible] in the design and supervision of all [illegible]sses of buildings, thoroughly experie[illegible]d in reinforced concrete, desires position as chief engineer for general contr[illegible]or. Address "M. A. 7," Engineering N[illegible]s, New York. 7-12t

EXPERIENCED reinforced concrete building superintendent desires position; 9 years' experience in building construction, 4 of which in reinforced concrete; technically educated; Eastern States preferred. Address "S. A. 7," Engineering News, New York. 7-3t

Situations Open

WANTED AT ONCE—First-class draftsman. Address J. J. GLANFIELD, Tulsa, Oklahoma. 7-1t

WANTED ENGINEERS—Electrical, mechanical and structural, with technical education and experience on coal and ore handling plants. Give full details, references and salary wanted. Address "X. Y. 7," Engineering News, 1636 Monadnock Block, Chicago. 7-1t

ESTIMATOR for building contracting firm. Must be rapid and accurate; experienced on reinforced concrete, brick, stone, timber construction and all classes of carpenter work. Immediate employment, provided references are acceptable. Address "G. A. 7," Engineering News, New York. 7-1t

Notice of Examination of Applicants for the Position of Supervisor of the Waterworks, Minneapolis, Minn.

Minneapolis, Minn., Feb. 15, 1909.

The undersigned, Board of Examiners, appointed by the City Council of the City of Minneapolis, Minnesota, hereby give notice that an examination in hydraulic and mechanical engineering will be held in the office of the City Engineer on March 15, 1909, at 10 A. M., to examine candidates for the position of Supervisor of the Water Works, in the Water Department of the City of Minneapolis, Minnesota.

(Signed)
ANDREW RINKER,
FREDERICK H. BASS,
F. W. CAPPELEN,
7-1t Board of Examiners.

Miscellaneous Wants

YOUNG MAN, located in Newark, N. J., wishes agency for some material, patented or otherwise, used in building construction. Address "X. A. 7," Engineering News, New York. 7-1t

FOR SALE

FOR SALE.

Electric Railway Car Gear Case

Patent.

New type. Strong, light and economic. No rivets. Neutralization of vibrations. United States Patent for sale. Address MR. M. TEDESCHI, 29 West 27th St., N. Y. C. 7-1t

DERRICKS

FOR SALE.

One 30-ton Steel Derrick, with steam hoisting engine for same. Two 5-ton Wooden Derricks with belt hoists. Prices on application to the

KENNESAW MARBLE CO.,
Marietta, Ga. 7-1t